



CERTIFICATE

The TÜV CERT Certification Body
for QM Systems of RWTÜV Systems GmbH

hereby certifies in accordance with TÜV CERT
procedure that

**ELITEGROUP COMPUTER SYSTEMS CO., LTD.
ECS MANUFACTURING (SHENZHEN) CO., LTD.
ELITE TECHNOLOGY (SHENZHEN) CO., LTD.**

2F, No. 240, Sec. 1, Nei Hu Road, Taipei, Taiwan 114
No. 22, Alley 38, Lane 91, Sec. 1, Nei Hu Road, Taipei, Taiwan 114
No. 20 & No. 26, Free Trade Zone, Shatoujiao, Shenzhen City, Guangdong Province, China

has established and applies a quality system for

**Design, Manufacturing and Sales of Mainboards,
Personal Computers, Notebooks and Peripheral Cards**

An audit was performed, Report No. 2.5-1585/2000

Proof has been furnished that the requirements according to
ISO 9001 : 2000 / EN ISO 9001 : 2000 / JIS Q 9001 : 2000 / ANSI/ASQC Q9001 : 2000

are fulfilled. The certificate is valid until 27 January 2007

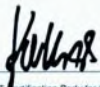
Certificate Registration No. 04100 2000 1325

The company has been certified since 2000



Essen, 04.03.2004




The TÜV CERT Certification Body for QM Systems
of RWTÜV Systems GmbH



ISO14001 CERTIFICATE

Certificate No.: 061-04-EI-0065-R1-L

We hereby certify that

ECS MANUFACTURING (SHANZHEN) CO., LTD.

by reason of its

Environmental Management System

has been awarded this certificate for
compliance with the standard

ISO14001:1996

The Environmental Management System

applies in the following area:

ECS MANUFACTURING (SHANZHEN) CO., LTD.

located at No. 20 & 26 (except 1F, 2F), Free Trade Zone,

Shatuojiao, Shenzhen City, Guangdong Province, P. R. China.

is engaged in manufacturing of Mother Board and Peripheral Card,
and interrelated managerial activities.

Date of issue: 28th Sept. 2004

Date of expiry: 27th Sept. 2007

Signed by:



SHENZHEN SOUTHERN CERTIFICATION CO., LTD.

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Static Electricity Precautions

1. Don't take this motherboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please wear a grounded wrist strap if possible. If you don't have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Carefully hold this motherboard by its edges. Do not touch those components unless it is absolutely necessary. Put this motherboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this motherboard whether there are any damages to components and connectors on the board.
2. If you suspect this motherboard has been damaged, do not connect power to the system. Contact your motherboard vendor about those damages.

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661GX-M2 Series, V5.0
June 2006**

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Multi-Language Translation

Notice:

- 1 Owing to Microsoft's certifying schedule is various to every supplier, we might have some drivers not certified yet by Microsoft. Therefore, it might happen under Windows XP that a dialogue box (shown as below) pop out warning you this software has not passed Windows Logo testing to verify its compatibility with Windows XP. Please rest assured that our RD department has already tested and verified these drivers. Just click the "Continue Anyway" button and go ahead the installation.



- 2 USB 2.0 Driver Limitations:
 - 2-1 The USB 2.0 driver only supports Windows XP and Windows 2000.
 - 2-2 If you connect a USB 2.0 hub to the root hub, plugging USB devices into this hub, the system might not successfully execute certain USB devices' connection because it could not recognize these devices.

Currently, we are working on such limitations' solution. As soon as the solution is done, the updated USB drive will be released to our website: www.pcchips.com for your downloading.

Motherboard User's Guide

Chapter 1 Introduction

This motherboard has a **Socket-478** to support **Intel Pentium 4** processors with **Hyper-Threading Technology** and Front-Side Bus (FSB) speeds up to **800 MHz(only by overclocking)** / 533 MHz. Hyper-Threading Technology, designed to take advantage of the multitasking features in Windows XP, gives you the power to do more things at once.

This motherboard integrates the **SiS661GX** Northbridge and **SiS964L** Southbridge that supports the built-in **USB 2.0** providing higher bandwidth, implementing **Universal Serial Bus Specification Revision 2.0** and is compliant with **UHCI 1.1** and **EHCI 0.95**. It supports two DIMM sockets for **DDR400/333/266** up to 2 GB system memory, **AC' 97 Audio Codec** and **Ultra DMA 133/100/66** function. It has one **8X AGP**, one **CNR** and two 32-bit **PCI** slots. There is a full set of I/O ports including two PS/2 ports for mouse and keyboard, one serial port, one parallel port, one LAN port(optional), one **VGA** port, three audio jacks for Line-in, Line-out and Microphone, and four back-panel USB2.0 ports. In addition, onboard USB headers USB2/USB3 provide extra ports by connecting the Extended USB Module to the motherboard.

It is a **Micro ATX** motherboard and has power connectors for an ATX power supply.

Key Features

The key features of this motherboard include:

Socket-478 Processor

- Supports **Intel Pentium 4 Series** processors
- Supports up to **800 MHz(only by overclocking)** / 533 MHz Front-Side Bus

Hyper-Threading technology enables the operating system into thinking it's hooked up to two processors, allowing two threads to be run in parallel, both on separate 'logical' processors within the same physical processor.

Users please note that this motherboard supports FSB 533 MHz only; FSB 800 MHz can be achieved by overclocking but it may be unstable!

Chipset

There are **SiS661GX Northbridge** and **SiS964L** in the chipsets in accordance with an innovative and scalable architecture with proven reliability and performance.

- High Performance Host Interface: Supports Intel Pentium 4 processor family with FSB 533MHz

Motherboard User's Guide

- Integrated A.G.P. Compliant Target/66Mhz Host-to-PCI Bridge: Universal AGP v3.5 Compliant and Support 1.5V AGP Interface Only
- High Performance & High Quality 3D Graphics Accelerator: Built-in a high performance 256-bit 3D engine
- Complete TV-OUT/Digital Flat Panel Solution: Built-in secondary CRT controller to support independent display of secondary CRT, LCD and TV-out
- PCI 2.3 Specification Compliance
- Integrated Multithreaded I/O Link Mastering
- Multithreaded I/O Link Mastering with Read/Write Concurrent transaction

Memory Support

- Two 184-pin DIMM sockets for DDR SDRAM memory modules
- Supports **DDR400** memory bus
- Maximum installed memory is 2GB

Expansion Slots

- Two 32-bit PCI slots
- One **8X AGP** slot
- One CNR slot

Onboard IDE channels

- Two IDE connectors
- Supports PIO (Programmable Input/Output) and DMA (Direct Memory Access) modes
- Supports IDE Ultra DMA bus mastering with transfer rates of **133/100/66 MB/sec**

VGA

- High Performance & High Quality 3D Graphics Accelerator: built-in a high performance 256-bit 3D engine
- High Performance 2D Graphics Accelerator: maximum 64MB frame buffer with linear addressing
- MPEG-2/1 Video Decoder: MPEG-2 ISO/IEC 13818-2 MP@HL and MPEG-1 ISO/IEC 11172-2 standards compliant

AC'97 Audio Codec

- Compliant with AC'97 2.3 specification
- 16-bit Stereo full-duplex CODEC with independent and variable sampling rate
- Support for 3.3v digital, 5v analog power supply and low power consumption management
- Two analog line-level stereo inputs with 5-bit volume control: LINE_IN, CD
- Standard 48-Pin LQFP

Onboard I/O Ports

- Two PS/2 ports for mouse and keyboard
- One serial port
- One parallel port
- One VGA port
- One LAN port (optional)
- Four back-panel USB2.0 ports
- Audio jacks for microphone, line-in and line-out

Fast Ethernet LAN (optional)

- Supports 10/100Mbps operation and half/full duplex operation
- IEEE 802.3/802.3u compliant
- Supports IEEE 802.3u clause 28 auto negotiation
- Supports operation under Link Down Power Saving mode
- Supports Base Line Winder (BLW) compensation
- Adaptive Equalization

USB 2.0

- Compliant with Universal Serial Bus Specification Revision 2.0
- Compliant with Intel's Enhanced Host Controller Interface Specification Revision 1.0
- Compliant with Universal Host Controller Interface Specification Revision 1.1
- PCI multi-function device consists of two **UHCI Host Controller** cores for full-/low-speed signaling and one **EHCI Host Controller** core for high-speed signaling
- Root hub consists 4 downstream facing ports with integrated physical layer transceivers shared by **UHCI** and **EHCI** Host Controller, up to eight functional ports
- Support PCI-Bus Power Management Interface Specification release 1.1
- Legacy support for all downstream facing ports

BIOS Firmware

This motherboard uses AMI BIOS that enables users to configure many system features including the following:

- Power management
- Wake-up alarms
- CPU parameters and memory timing
- CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

Dimensions

- Micro ATX form factor of 244 x 200 mm

Motherboard User's Guide

Note: Hardware specifications and software items are subject to change without notification.

Package Contents

Your motherboard package ships with the following items:

- The motherboard
- The User's Guide
- One diskette drive ribbon cable (optional)
- One IDE drive ribbon cable
- The Software support CD

Optional Accessories

You can purchase the following optional accessories for this motherboard.

- The Extended USB module
- The CNR v.90 56K Fax/Modem card

Note: You can purchase your own optional accessories from the third party, but please contact your local vendor on any issues of the specification and compatibility.

Chapter 2 Motherboard Installation

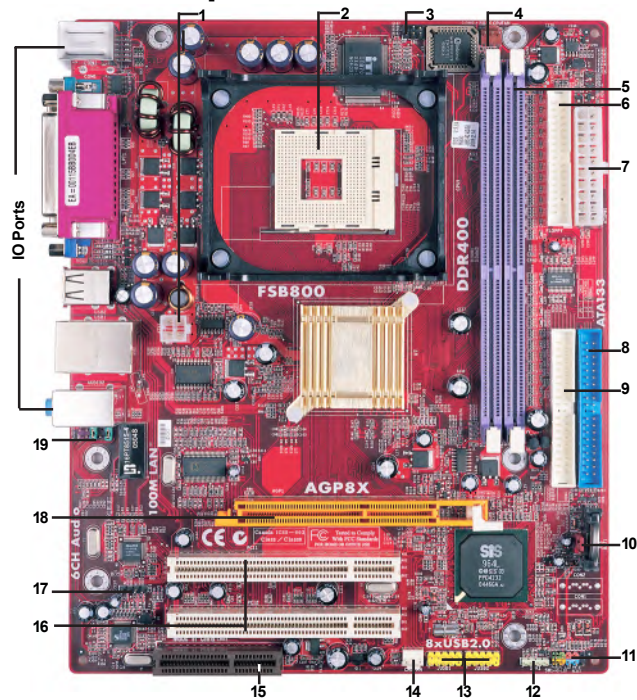
To install this motherboard in a system, please follow these instructions in this chapter:

- Identify the motherboard components
- Install a CPU
- Install one or more system memory modules
- Make sure all jumpers and switches are set correctly
- Install this motherboard in a system chassis (case)
- Connect any extension brackets or cables to headers/connectors on the motherboard
- Install peripheral devices and make the appropriate connections to headers/connectors on the motherboard

Note:

1. Before installing this motherboard, make sure jumper JP3 is under Normal setting. See this chapter for information about locating JP3 and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the motherboard.

Motherboard Components

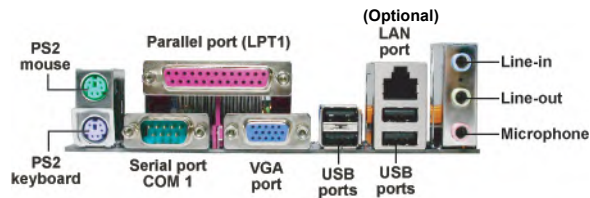


ITEM	LABEL	COMPONENTS
1	ATX1	Standard 4-Pin ATX Power connector
2	CPU Socket	Socket-478 for Pentium 4 CPUs
3	IR1	Infrared header
4	CPUFAN	CPU Fan connector(3PIN)
5	DDR1/2	184-pin DDR SDRAM sockets
6	FLOPPY	Floppy Disk Drive connector
7	ATXPW1	Standard 20-Pin ATX Power connector
8	IDE1	Primary IDE connector
9	IDE2	Secondary IDE connector
10	JP3	Clear CMOS jumper
11	SW1	Front Panel Switch/LED header
12	SPK1	Speaker header
13	JUSB1/2	Front Panel USB headers
14	CHSFAN	System Fan connector
15	CNR1	CNR slot

ITEM	LABEL	COMPONENTS
16	PCI 1-2	32-bit PCI slots
17	CD1	Analog Audio Input header
18	AGP1	Accelerated Graphics Port slot
19	AUDIO1	Front Panel Audio header

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the motherboard.



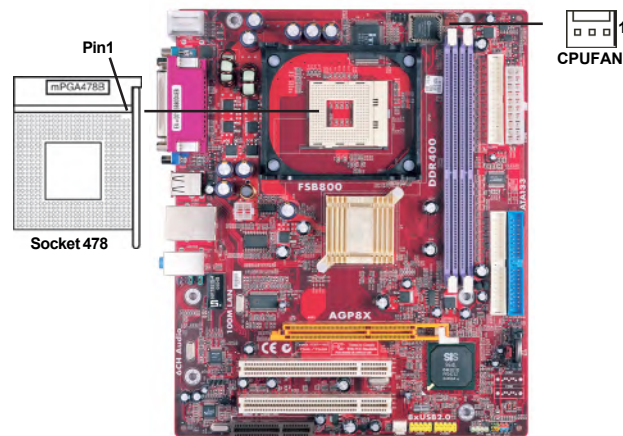
PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
Parallel Port (LPT1)	Use the Parallel port to connect printers or other parallel communications devices.
COM1	Use the COM port to connect serial devices such as mice or fax/modems. COM1 is identified by the system as COM1.
VGA	Use the VGA port to connect VGA devices.
LAN Port (optional)	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB Ports	Use the USB ports to connect USB devices.
Audio Ports	Use these three audio jacks to connect audio devices. The first jack is for stereo Line-In signal, the second jack for stereo Line-Out signal, and the third jack for Microphone.

Installing the Processor

This motherboard has a Socket 478 processor socket. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure

Follow these instructions to install the CPU:



- 1 Install your CPU. Pull up the lever away from the socket and lift up to 90-degree angle.
- 2 Locate the CPU cut edge (the corner with the pin hold noticeably missing). Align and insert the CPU correctly.
- 3 Press the lever down and apply thermal grease on top of the CPU.
- 4 Put the CPU Fan down on the retention module and snap the four retention legs of the cooling fan into place.
- 5 Flip the levers over to lock the heat sink in place and connect the CPU cooling Fan power cable to the CPU fan connector (CPUFAN). This completes the installation.

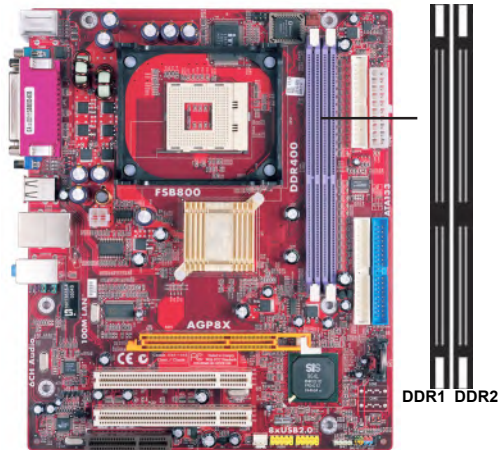


Note: The fan power requirement for proper operation is a maximum current of 740mA at +12V.

Installing Memory Modules

This motherboard accommodates two 184-pin DIMM sockets (Dual Inline Memory Module) for unbuffered **DDR 400/333/266** (Double Data Rate SDRAM), and maximum 2 GB installed memory.

DDR SDRAM is a type of SDRAM that supports data transfers on both edges of each clock cycle (the rising and falling edges), effectively doubling the memory chip's data throughput. DDR DIMMs can synchronously work with 400/333/266 MHz memory and provide 3.2 GB/s, 2.7 GB/s, 2.1 GB/s and 1.6 GB/s data transfer rate.

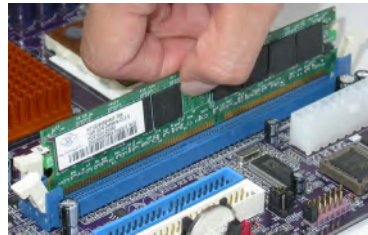


Memory Module Installation Procedure

These modules can be installed with up to 2 GB system memory. Refer to the following to install the memory module.

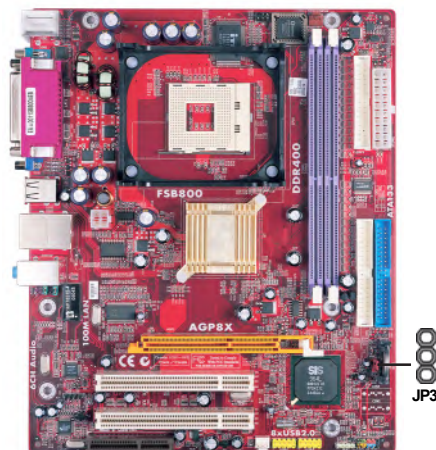
1. Push down the latches on both sides of the DIMM socket.
2. Align the memory module with the socket. There is a notch on the DIMM socket that you can install the DIMM module in the correct direction. Match the cutout on the DIMM module with the notch on the DIMM socket.
3. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.

4. Install any remaining DIMM modules.



Jumper Settings

Connecting two pins with a jumper cap is SHORT; removing a jumper cap from these pins, OPEN.



JP3: Clear CMOS Jumper

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect and prevent your motherboard from operating. To clear the CMOS memory, disconnect all the power cables from the motherboard and then move the jumper cap into the CLEAR setting for a few seconds.

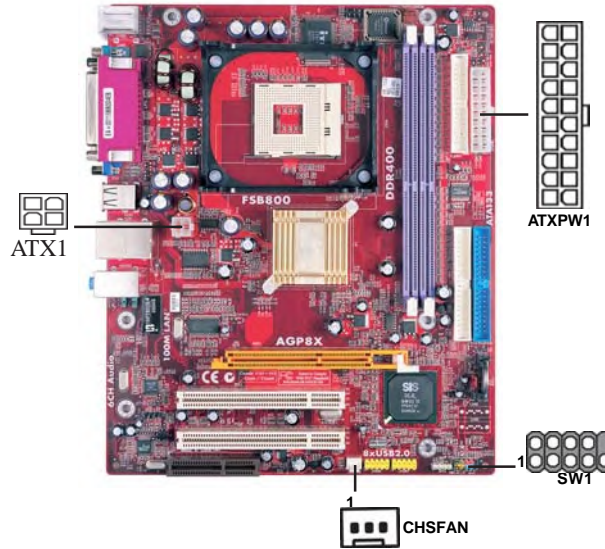
Function	Jumper Setting
Clear CMOS	Short Pins 1-2
Normal	Short Pins 2-3

Note: To avoid the system instability after clearing CMOS, we recommend users to enter the main BIOS setting page to "Load Optimal De-faults" and then "Save Changes and Exit".

Install the Motherboard

Install the motherboard in a system chassis (case). The board is a Micro ATX size motherboard. You can install this motherboard in an ATX case. Make sure your case has an I/O cover plate matching the ports on this motherboard.

Install the motherboard in a case. Follow the case manufacturer's instructions to use the hardware and internal mounting points on the chassis



Connect the power connector from the power supply to the **ATXPW1** connector on the motherboard. The **ATX1** is a +12V connector for CPU Vcore power.

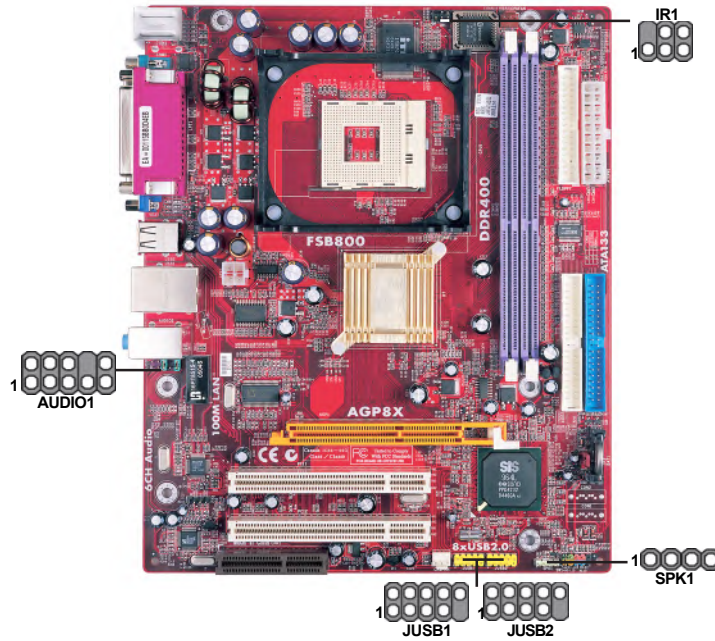
If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **CHSFAN** fan power connector on the motherboard.

Connect the case switches and indicator LEDs to the **SW1** header. Here is a list of the SW1 pin assignments.

Pin	Signal	Pin	Signal
1	HD_LED_P(+)	2	FP PWR/SLP(+)
3	HD_LED_N(-)	4	FP PWR/SLP(-)
5	RESET_SW_N(-)	6	POWER_SW_P(+)
7	RESET_SW_P(+)	8	POWER_SW_N(-)
9	RSVD_DNU	10	KEY

Connecting Optional Devices

Refer to the following for information on connecting the motherboard's optional devices:



SPK1: Speaker Header

Connect the cable from the PC speaker to the SPK1 header on the motherboard.

Pin	Signal	Pin	Signal
1	SPKR	2	NC
3	GND	4	+5V

AUDIO1: Front Panel Audio Header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal	Pin	Signal
1	AUD_MIC	2	AUD_GND
3	AUD_MIC_BIAS	4	AUD_VCC
5	AUD_FPOUT_R	6	AUD_RET_R
7	NC	8	KEY_RET_L
9	AUD_FPOUT_L	10	AUD_RET_L

JUSB1/JUSB2: Front panel USB Headers

The motherboard has USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB headers JUSB1/JUSB2 to connect the front-mounted ports to the motherboard.

Pin	Signal	Pin	Signal
1	VERG_FP_USBPWR0	2	VERG_FP_USBPWR0
3	USB_FP_P0(-)	4	USB_FP_P1(-)
5	USB_FP_P0(+)	6	USB_FP_P1(+)
7	GROUND	8	GROUND
9	KEY	10	NC

1. Locate the JUSB1/JUSB2 header on the motherboard.
2. Plug the bracket cable onto the JUSB1/JUSB2 header.
3. Remove a slot cover from one of the expansion slots on the system chassis. Install an extension bracket in the opening. Secure the extension bracket to the chassis with a screw.

IR1: Infrared Header

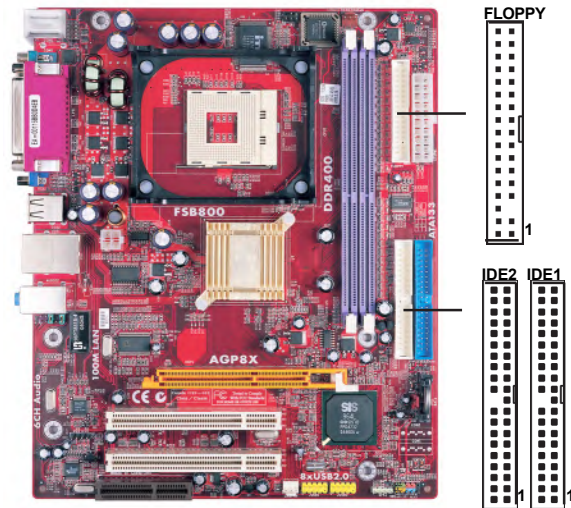
The infrared port allows the wireless exchange of information between your computer and similarly equipped devices such as printers, laptops, Personal Digital Assistants (PDAs), and other computers.

Pin	Signal	Pin	Signal
1	NC	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

1. Locate the infrared port-**IR1** header on the motherboard.
2. If you are adding an infrared port, connect the ribbon cable from the port to the IR1 header and then secure the port to an appropriate place in your system chassis.

Install Other Devices

Install and connect any other devices in the system following the steps below.



Floppy Disk Drive

The motherboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5" or 5.25" wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB.

Install your drives and connect power from the system power supply. Use the cable provided to connect the drives to the floppy disk drive connector **FLOPPY**.

IDE Devices

IDE devices include hard disk drives, high-density diskette drives, and CD-ROM or DVD-ROM drives, among others.

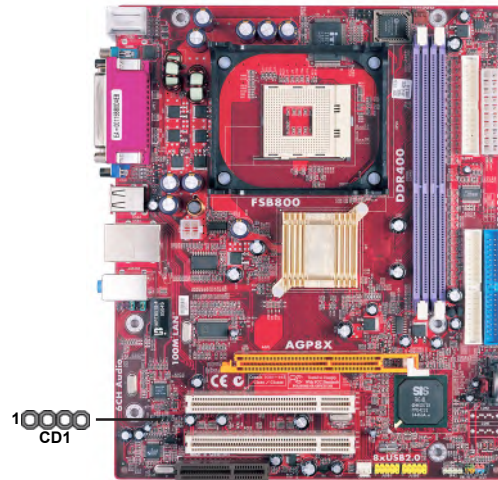
The motherboard ships with an IDE cable that can support one or two IDE devices. If you connect two devices to a single cable, you must configure one of the drives as Master and one of the drives as Slave. The documentation of the IDE device will tell you how to configure the device as a Master or Slave device. The Master device connects to the end of the cable.

Install the device(s) and connect power from the system power supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the motherboard.

If you want to install more IDE devices, you can purchase a second IDE cable and connect one or two devices to the Secondary IDE channel connector **IDE2** on the motherboard. If you have two devices on the cable, one must be Master and one must be Slave.

Analog Audio Input Header

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system.

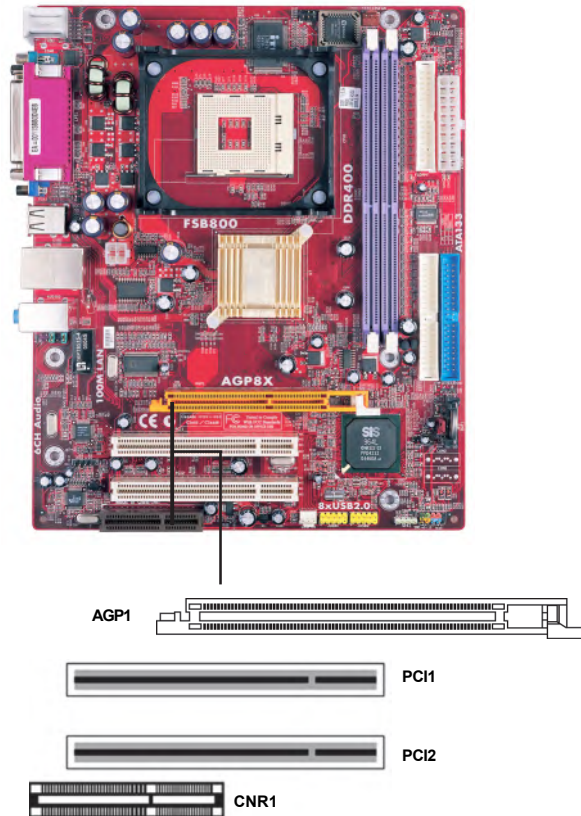


When you first start up your system, the BIOS should automatically detect your CD-ROM/DVD drive. If it doesn't, enter the Setup Utility and configure the CD-ROM/DVD drive that you have installed. On the motherboard, locate the 4-pin header **CD1**.

Pin	Signal
1	CD IN L
2	GND
3	GND
4	CD IN R

Expansion Slots

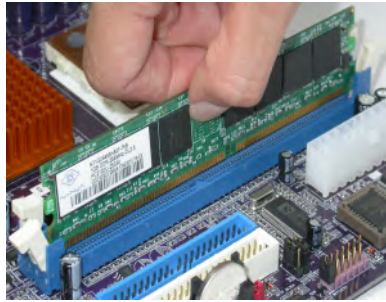
This motherboard has one AGP, CNR and two 32-bit PCI slots.



Follow the steps below to install an AGP/CNR/PCI expansion card.

- 1 Locate the AGP, CNR or PCI slots on the motherboard.
- 2 Remove the blanking plate of the slot from the system chassis.
- 3 Install the edge connector of the expansion card into the slot. Ensure the edge connector is correctly seated in the slot.

- 4 Secure the metal bracket of the card to the system chassis with a screw.



8X AGP Slot

You can install a graphics adapter that supports the 8X AGP specification and has a 8X AGP edge connector in the AGP slot.

CNR Slot

You can install the CNR (Communications and Networking Riser) cards in this slot, including LAN, Modem, and Audio functions.

PCI Slots

You can install the 32-bit PCI interface expansion cards in the slots.

Chapter 3 BIOS Setup Utility

Introduction

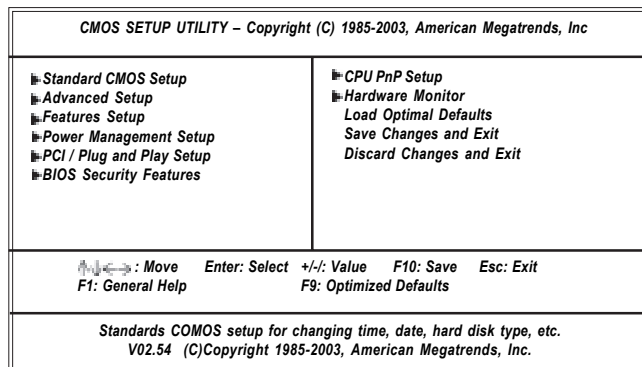
The BIOS Setup Utility records settings and information of your computer, such as date and time, the type of hardware installed, and various configuration settings. Your computer applies the information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information; or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the motherboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to “Hit if you want to run SETUP”. Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor. If you manually clear CMOS, you need to press the **F1** key that enters the Main menu page of the Setup Utility.



Chapter 3: BIOS Setup Utility

You can use cursor arrow keys to highlight anyone of options on the main menu page. Press **Enter** to select the highlighted option. Press the **Escape** key to leave the setup utility. Press +/- to modify the selected field's values.

Some options on the main menu page lead to tables of items with installed values that you can use cursor arrow keys to highlight one item, and press **+** and **-** keys to cycle through alternative values of that item. The other options on the main menu page lead to dialog boxes requiring your answer OK or Cancel by selecting **[OK]** or **[Cancel]**.

If you have already changed the setup utility, press **F10** to save those changes and exit the utility. Press **F1** to display a screen describing all key functions. Press **F9** to install the setup utility with a set of default values.

Standard CMOS Setup Page

This page displays a table of items defining basic information about your system.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc. Standard CMOS Setup		
System Time	00:17:00	Help Item
System Date	Fri 06/02/2006	
Primary IDE Master	Not Detected	User [Enter], [TAB] or [SHIFT-TAB] to select a field. Use [+] or [-] to configure system time.
Primary IDE Slave	Not Detected	
Secondary IDE Master	CD/DVD ROM	
Secondary IDE Slave	Not Detected	
Floppy A	1.44 MB 3 1/2"	
Floppy B	Disabled	

System Time & System Date

These items set up system date and time.

Primary IDE Master/Primary IDE Slave/Secondary IDE Master/Secondary IDE Slave

Your computer has one IDE channel and each channel can be installed with one or two devices (Master and Slave). In addition, this motherboard supports four SATA channels and each channel allows one SATA device to be installed. Use these items to configure each device on the IDE channel.

Floppy A/B

These items set up size and capacity of the floppy diskette drive(s) installed in the system.

Advanced Setup Page

This page sets up more advanced information about your system. Handle this page with caution. Any changes can affect the operation of your computer.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc.		
Advanced Setup		
		Help Item
Share Memory Size	32MB	
Quick Boot	Enabled	
1st Boot Device	SM-ASUS DVD-E616P	
2nd Boot Device	1st FLOPPY DRIVE	
3rd Boot Device	Network Card	
Try Other Boot Device	Yes	
Bootup Num-Lock	On	
Boot To OS/2 > 64 MB	No	
Graphic Win Size	64 MB	
DRAM CAS# Latency	By SPD	
Performance Mode Select	Disabled	
MA 1T/2T Select	Auto	
Auto Detect DIMM/PCI Clk	Enabled	
Spread Spectrum	Disabled	
Max CPUID Value Limit	Disabled	
		Allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system.

Share Memory Size

This item lets you allocate a portion of the main memory for the onboard VGA display application with three options of 16/32/64MB.

Quick Boot

If you enable this item, the system starts up more quickly by elimination of some of the power on test routines.

1st Boot Device/2nd Boot Device/3rd Boot Device

Use these items to determine the device order the computer uses to look for an operating system to load at start-up time.

Try Other Boot Device

If you enable this item, the system will also search for other boot devices if it fails to find an operating system from the first two locations.

BootUp Num-Lock

This item determines if the Num Lock key is active or inactive at system start-up time.

Boot To OS/2 > 64MB

Enable this item if you are booting the OS/2 operating system and you have more than 64MB of system memory installed.

Graphic Win Size

This item defines the size of aperture if you use a graphic adapter.

DRAM CAS# Latency

This item determines the operation of SDRAM memory CAS (column address strobe). It is recommended that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.

Performance Mode Select

You can enable this item to achieve a better performance; however, it is necessary to use a better DDR SDRAM going with this function.

MA 1T/2T Select

This item adjusts timing 1T/2T latency. We recommend you to leave this item at the default value.

Auto detect DIMM/PCI Clock

When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.

Spread Spectrum

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

Max CPUID Value Limit

When this item is enabled, you can use Prescott CPU and LGA-775 CPU and there will be a normal NT4.0 installation; otherwise, the automatically restarting will occur while installing.

Features Setup Page

This page sets up some parameters for peripheral devices connected to the system.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc.		
Features Setup		
		Help Item
OnBoard Floppy Controller	Enabled	
Serial Port1 Address	3F8/IRQ4	
OnBoard IR Port	Disabled	
Parallel Port Address	378	Allows BIOS to Enable or Disable Floppy Controller.
Parallel Port Mode	ECP	
ECP Mode DMA Channel	DMA3	
Parallel Port IRQ	IRQ7	
OnBoard PCI IDE Controller	Both	
Audio Device	Enabled	
MODEM Device	AUTO	
Ethernet Device	Enabled	
OnBoard USB Function	Enabled	
USB Function For DOS	Disabled	

OnBoard Floppy Controller

Use this item to enable or disable the onboard floppy disk drive interface.

Serial Port1 Address

Use this item to enable or disable the onboard COM1 serial port, and to assign a port address.

OnBoard IR Port

Use this item to enable or disable the onboard infrared port, and to assign a port address.

Parallel Port Address

This item enables or disables the onboard LPT1 parallel port, and assigns a port address. The Auto setting will detect and available address.

Parallel Port Mode

Use this item to set the parallel port mode. You can select Normal (Standard Parallel Port), ECP (Extended Capabilities Port), EPP (Enhanced Parallel Port), or EPP & ECP.

ECP Mode DMA Channel

Use this item to assign a DMA channel to the parallel port.

Parallel Port IRQ

Use this item to assign IRQ to the parallel port.

OnBoard PCI IDE Controller

Use this item to enable or disable the onboard PCI IDE channel.

Audio Device

This item enables or disables the AC'97 audio chip.

MODEM Device

This item enables or disables the MC⁹⁷ modem chip.

Ethernet Device

This item enables or disables the onboard Ethernet LAN.

OnBoard USB Function

Enable this item if you plan to use the USB ports on this motherboard.

USB Function For DOS

Enable this item if you plan to use the USB ports on this motherboard in a DOS environment.

Power Management Setup Page

This page sets some parameters for system power management operation.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc. Power Management Setup		
ACPI Aware O/S	Yes	Help Item Yes / No ACPI support for Operating System. Yes: If OS supports ACPI. No: If OS does not support ACPI.
Power Management	Enabled	
Suspend Time Out	Disabled	
Resume on RTC Alarm	Disabled	
Keyboard Power On	Disabled	
LAN/Ring Power On	Disabled	

ACPIAware O/S

This item supports ACPI (Advanced Configuration and Power Management Interface). Use this item to enable or disable the ACPI feature.

Power Management

Use this item to enable or disable a power management scheme. If you enable power management, you can use this item below to set the power management operation. Both APM and ACPI are supported.

Suspend Time Out

This item sets up the timeout for Suspend mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Suspend mode.

Resume on RTC Alarm

The system can be turned off with a software command. If you enable this item, the system can automatically resume at a fixed time based on the system's RTC (realtime clock). Use the items below this one to set the date and time of the wake-up alarm. You must use an ATX power supply in order to use this feature

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Keyboard Power On

If you enable this item, the system can automatically resume by pressing any keys, hot key, power key on the keyboard, or typing in the password. You must use an ATX power supply in order to use this feature.

LAN/Ring Power On

The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the Modem/Ring, or traffic on the network adapter. You must use an ATX power supply in order to use this feature.

PCI / Plug and Play Setup Page

This page sets up some parameters for devices installed on the PCI bus and those utilizing the system plug and play capability.

<i>CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc. PCI / Plug and Play Setup</i>		
<i>Primary Graphics Adapter</i>	<i>PCI</i>	<i>Help Item</i>
<i>Allocate IRQ to PCI VGA</i>	<i>Yes</i>	<i>Select which graphics controller to use as the primary boot device.</i>
<i>PCI IDE BusMaster</i>	<i>Disabled</i>	

Primary Graphics Adapter

This item indicates if the primary graphics adapter uses the PCI or the AGP bus. The default PCI setting still lets the onboard display work and allows the use of a second display card installed in an AGP slot.

Allocate IRQ to PCI VGA

If this item is enabled, an IRQ will be assigned to the PCI VGA graphics system. You set this value to No to free up an IRQ.

PCI IDE BusMaster

This item enables or disables the DMA under DOS mode. We recommend you to leave this item at the default value.

BIOS Security Features Setup Page

This page helps you install or change a password.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc. BIOS Security Features Setup	
Security Settings	Help Item
Supervisor Password : <i>Not Installed</i> Change Supervisor Password <i>Press Enter</i>	Install or Change the password.

Supervisor Password

This item indicates whether a supervisor password has been set. If the password has been installed, *Installed* displays. If not, *Not Installed* displays.

Change Supervisor Password

You can select this option and press <Enter> to access the sub menu. You can use the sub menu to change the supervisor password.

CPU PnP Setup Page

This page helps you manually configure the mainboard for the CPU. The system will automatically detect the type of installed CPU and make the appropriate adjustments to the items on this page.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc. CPU PnP Setup	
	Help Item
Manufacturer: <i>Intel</i> Auto Detect CPU and DRAM Freq. <i>Enabled</i> CPU Frequency Setting <i>133</i> DRAM Frequency <i>200MHz</i>	

Manufacturer

These items show the brand of the CPU installed in your system.

Motherboard User's Guide

Auto Detect CPU and DRAM FREQU

When this item is enabled, it automatically detects and shows the frequency of the CPU and DRAM memory installed in your system; when disabled, it can adjust the frequency of the CPU and DRAM memory.

CPU Frequency setting

This item shows the frequency of the CPU installed in your system.

DRAM Frequency

This item shows the frequency of the DRAM in your system.

Hardware Monitor Page

This page sets up some parameters for the hardware monitoring function of this motherboard.

CMOS SETUP UTILITY – Copyright (C) 1985-2003, American Megatrends, Inc. Hardware Monitor Setup	
System Hardware Monitor	Help Item
Vcore	: 1.488 V
Vdimm	: 2.576 V
Vivdd	: 1.792 V
Ucc5V	: 5.053 V
SB3V	: 3.248 V
CHASSIS FAN Speed	: 0 RPM
CPU FAN Speed	: 4326 RPM
SYSTEM Temperature	: 32°C/89°F
CPU Temperature	: 25°C/77°F

CPU/System Temperature

These items display CPU and system temperature measurement.

FANS & Voltage Measurements

These items indicate cooling fan speeds in RPM and the various system voltage measurements.

Load Optimal Defaults

This option opens a dialog box to ask if you are sure to install optimized defaults or not. You select [OK], and then press <Enter>, the Setup Utility loads all default values; or select [Cancel], and then press <Enter>, the Setup Utility does not load default values.

Save Changes and Exit

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility configuration. When the Save Changes and Exit dialog box appears, select [OK] to save and exit, or select [Cancel] to return to the main menu.

Discard Changes and Exit

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Discard Changes and Exit dialog box appears, select [OK] to discard changes and exit, or select [Cancel] to return to the main menu.

Note: If you have made settings that you do not want to save, use the "Discard Changes and Exit" item and select [OK] to discard any changes you have made.

Chapter 4 Software & Applications

Introduction

This chapter describes the contents of the support CD-ROM that comes with the motherboard package.

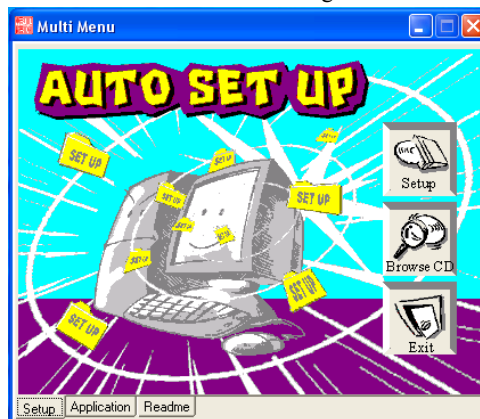
The support CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support CD, simply insert the CD into your CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows 2000/XP, it will automatically install all the drivers and utilities for your motherboard; if Windows NT or manual installation, please follow the instructions described as the Installing under Windows NT or Manual Installation section.

Installing Support Software

- 1 Insert the support CD-ROM disc in the CD-ROM drive.
- 2 When you insert the CD-ROM disc in the system CD-ROM drive, the CD automatically displays an Auto Setup screen.
- 3 The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Setup**, **Application** and **ReadMe** at the bottom. Please see the following illustration.



The **Setup** button runs the software auto-installing program as explained in next section.

The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows 98 file browsing interface.

The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive; or click the CD-ROM driver from the Windows Explorer, and click the Setup icon.

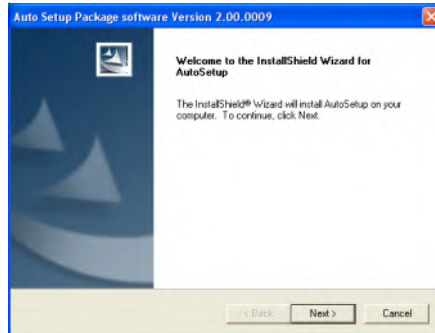
The **Application** button brings up a software menu. It shows the bundled software that this mainboard supports.

The **ReadMe** brings you to the Install Path where you can find out path names of software driver.

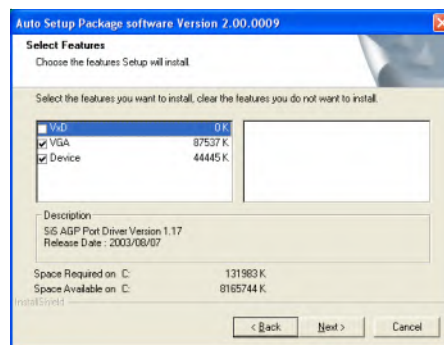
Auto-Installing under Windows 2000/XP

If you are under Windows 2000/XP, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support CD-ROM:

- 1 The installation program loads and displays the following screen. Click the **Next** button.



- 2 Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.



- 3 The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Installing under Windows NT or Manual Installation If you are under Windows NT, the auto-installing program doesn't work out; or you have to do the manual installation, please follow this procedure while the Auto Setup screen pops out after inserting the support CD-ROM:

- 1 Click the **ReadMe** to bring up a screen, and then click the Install Path at the bottom of the screen.
- 2 Find out your mainboard model name and click on it to obtain its correct driver directory.
- 3 Install each software in accordance with the corresponding driver path.

Bundled Software Installation

All bundled software available on the CD-ROM is for users' convenience. You can install bundled software as follows:

- 1 Click the **Application** button while the Auto Setup screen pops out after inserting the support CD-ROM.
- 2 A software menu appears. Click the software you want to install.
- 3 Follow onscreen instructions to install the software program step by step until finished.

AMI/AWARD Flash Utility

This utility lets you erase the system BIOS stored on a Flash Memory chip on the motherboard, and lets you copy an updated version of the BIOS to the chip. Proceed with caution when using this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction. Refer to chapter 3, BIOS setup Utility for more information.

WinFlash Utility

The WinFlash utility is a Windows version of the DOS BIOS flash writer utility. The utility enables you to flash the system BIOS stored on a Flash Memory chip on the motherboard while in a windows environment. This utility is currently available for WINXP\2000. To install the WinFlash utility, run AFUWIN.EXE (AMI) or WINFLASH.EXE (Award) from the following directory: \Utility\AMIFlash or AWDFlash.

Caractéristiques

Processeur

Cette carte mère utilise un type de socket 478 broches de Pentium 4 présentant les caractéristiques suivantes :

- Reçoit des processeurs Intel P4
- Prend en charge un bus système (FSB) jusqu'à 800 MHz (seulement par surfréquence)/533 MHz
- Supporte le CPU de technologie "Hyper-Threading"

La technologie "Hyper-Threading" permet au système d'exploitation de penser qu'il est connecté à deux processeurs, permettant d'exécuter deux threads en parallèle, à la fois sur des processeurs 'logiques' dans le même processeur physique.

Remarque : Les utilisateurs sont priés de noter que cette carte mère prend en charge uniquement le FSB de 533 MHz; le FSB de 800 MHz peut être obtenu par surfréquence mais risque d'être instable!

Chipset

La SiS661GX Northbridge (NB) et SiS964L Southbridge (SB) sont basés sur une architecture novatrice et dimensionnable avec une fiabilité et des performances prouvées.

SiS661GX (NB)

- Supporte 12 transactions en suspens avec achèvement dans le désordre.
- Intègre le SiS MuTIOL 1G haut débit s'interconnectant au média d'E/S SiS964 MuTIOL 1G avec bus de données bi-directionnel pour atteindre une bande passante de 1Go/s en mode 133 MHz x 4.
- Supporte l'interface AGP 8X/4X avec Fast Write Transaction
- Supporte les SDRAM DDR400/333/266

SiS964L (SB)

- Entretien simultané pour tous les Périphériques DMA: Contrôleurs IDE Doubles, contrôleur SATA, trois contrôleurs d'hôte USB 2.0/1.1, Contrôleur MAC LAN et Contrôleur DMA Audio/Modem
- Conforme aux spécifications PCI 2.3.
- Conforme à AC'97 v2.3 supportant 6 Canaux de sorties audio et Modem V.90 HSP.
- Contrôleur USB 2.0 intégré avec trois hubs racine et huit ports de fonction.

Mémoire

- Supporte le module mémoire DDR SDRAM 400/333/266 sans tampon
- Jusqu'à 1 Go par DIMM avec une taille de mémoire maximum de 2 Go

Audio

- CODEC full-duplex 16 bits avec vitesse d'échantillonnage de 48KHz
- Conforme aux spécifications AC'97 v2.3
- Entrée CD différentielle de haute qualité
- Prend en charge la vitesse d'échantillonnage double (96KHz) de la lecture audio DVD
- Compatible Direct Sound 3D™

Graphique

- Intégré dans un moteur 256 bits 3D hautes performances
- Moteur d'installation en triangle VLIW au format de virgule flottante en 32 bits intégré
- Pipeline de rendu 2 pixels intégré et 4 unités de texture
- Prend en charge une vitesse d'horloge de moteur 3D allant jusqu'à 133 MHz

Options d'Extensions

La carte mère est livrée avec les options d'extensions suivantes:

- Un logement compatible AGP 3.5 avec vitesse 8X/4X (supporte la carte 1.5V AGP seulement)
- Deux logement conforme PCI v2.3 32 bits
- Deux embases basses IDE de 40 broches prenant en charge jusqu'à quatre périphériques IDE
- Une interface de lecteur de disquette
- Un logement Communications Network Riser (CNR)

Cette carte mère prend en charge la maîtrise de bus Ultra DMA avec des vitesses de transfert de 133/100/66 Mo/s.

LAN Interne (Optionnel)

Le LAN interne offre les caractéristiques suivantes:

- Prend en charge le fonctionnement en 10/100Mbps
- Prend en charge le fonctionnement en half/full duplex
- Conforme IEEE 802.3/802.3u
- Vitesse/duplex/auto négociation réglable
- Fonctionnement en 3,3V avec tolérance de signal d'E/S de 5V

E/S intégrées

La carte mère comporte un ensemble complet de connecteurs et de ports E/S :

- Deux ports PS/2 pour souris et clavier
- Un port série
- Un port parallèle
- Un port VGA
- Quatre ports USB
- Un port LAN (optionnel)
- Prise audio pour micro, entrée de ligne et sortie de ligne

Microprogramme BIOS

La carte mère utilise Award BIOS qui permet à l'utilisateur de configurer bon nombre de fonctions du système, dont :

- Gestion d'alimentation
- Alertes de réveil
- Paramètres de CPU
- Synchronisation de CPU et de mémoire

Le micro-programme peut également être utilisé pour définir les paramètres pour différentes vitesses d'horloge de processeur.



Certaines spécifications matérielles et certains éléments logiciels sont susceptibles de modification sans préavis.

Leistungsmerkmale

Prozessor

Dieses Mainboard verwendet einen 478-Pin Sockel vom Typ Pentium 4, der die folgenden Merkmale besitzt:

- Nimmt Intel P4 Prozessoren auf
- Unterstützt einen Systembus (FSB) mit bis zu 800 MHz (nur bei Übertakten)/533 MHz
- Unterstützt eine CPU mit „Hyper-Threading“ Technologie

Bei der „Hyper-Threading“ Technologie „denkt“ das Betriebssystem, dass es an zwei Prozessoren angeschlossen ist. Dadurch können im selben physikalischen Prozessor zwei Threads parallel auf separaten „logischen“ Prozessoren laufen.

Hinweis: Bitte beachten Sie, dass dieses Mainboard nur einen FSB mit 533 MHz unterstützt. FSB mit 800 MHz kann zwar durch Übertakten erreicht werden, könnte allerdings instabil sein!

Chipsatz

Die Chipsätze SiS661GX Northbridge (NB) und SiS964L Southbridge (SB) basieren auf einer innovativen und skalierbaren Architektur mit bewiesener Zuverlässigkeit und Leistung.

SiS661GX (NB)

- Unterstützt 12 Outstanding Transactions und Out-of-Order-Completion
- Anpassung des hochleistungsfähigen SiS MuTIOL 1G, welcher sich mit dem SiS964 MuTIOL 1G media I/O zusammenschliesst, mit zweiseitigem 16-Bit Data-Bus zur Erlangung von 1GB/s Bandbreite im 133 MHz x 4 Modus.
- Unterstützt AGP 8X/4X Interface mit Fast Write-Transaction

SiS964L (SB)

- Unterstützt DDR400/333/266 SDRAM
- Gleichzeitige Bedienung aller DMA-Geräte: Duale IDE-Controller, SATA-Controller, drei USB 2.0/1.1 Host-Controller, LAN MAC-Controller und Audio/Modem DMA-Controller
- Gemäß Spezifikationen von PCI 2.3.
- Gemäß AC'97 v2.3 welcher 6 Audio-Output-Kanäle und ein V.90 HSP-Modem unterstützt.
- Onboard-USB 2.0-Controller mit drei Root Hub und acht Port.

Speicher

- Unterstützt ungepufferte DDR400/333/266 DDR SDRAM-Speichermodule
- Bis zu 1 GB pro DIMM mit einer maximalen Speichergröße von bis zu 2GB

Audio

- 16-Bit Stereo-Vollduplex CODEC mit einer Samplingrate von 48KHz
- Entspricht AC'97 v2.3 Spezifikation
- Qualitativ hochwertiger Differential-CD-Eingang
- Unterstützt bei der DVD-Audiowiedergabe die doppelte Samplingrate (96KHz)
- Kompatibel mit Direct Sound 3D™

Grafik

- Integrierter hochleistungsfähiger 256-Bit 3D-Engine
- Integrierter 32-Bit Fließkomma VLIW-Triangle Setup Engine
- Integrierte 2 Pixel Rendering-Pipelines und 4 Textureinheiten
- Unterstützt bis zu 133 MHz 3D-Engine Taktgeschwindigkeit

Erweiterungsoptionen

Das Mainboard bietet die folgenden Erweiterungsoptionen:

- Ein Steckplatz mit AGP 3.5 Entsprechung mit 8X/4X Geschwindigkeit (unterstützt nur 1.5V AGP Interface)
- Zwei 32-bit PCIv2.3-Steckplätze
- Zwei 40-Pin IDE-Flachheader, die vier IDE-Geräte unterstützen
- Eine Diskettenlaufwerksschnittstelle
- Ein Communications Networking Riser (CNR)-Steckplatz

Dieses Mainboard unterstützt UltraDMA Bus-Mastering mit Transferraten von 133/100/66 MB/s.

Integriertes LAN (optional)

Das integrierte LAN bietet die folgenden Eigenschaften:

- Unterstützt Betrieb bei 10/100Mbps
- Unterstützt half/full duplex Betrieb
- Entspricht IEEE 802.3/802.3u
- Geschwindigkeit/Duplex/Auto-Negotiation einstellbar
- 3.3V Betrieb mit 5V IO Signaltoleranz

Integrierte I/O

Das Mainboard hat einen vollständigen Satz von I/O-Schnittstellen bzw. -Anschlüssen:

- Zwei PS/2-Anschlüsse für Maus und Tastatur
- Eine serielle Schnittstelle
- Eine parallele Schnittstelle
- Eine VGA-Anschlüsse
- Vier USB-Anschlüsse
- Ein LAN-Anschluss (optional)
- Audiobuchse für Mikrofon, Line-In und Line-Out

BIOS-Firmware

Das Mainboard verwendet Award BIOS, das es Benutzern gestattet, viele Systemfunktionen inkl. der Folgenden zu konfigurieren:

- Energieverwaltung
- Aufweckfunktionen
- CPU-Parameter
- CPU- und Arbeitsspeicherfrequenz

Die Firmware kann auch zur Einstellung von Parametern für verschiedene Prozessortaktgeschwindigkeiten verwendet werden.



Manche Hardwarespezifikationen und Softwareelemente können ohne Ankündigung geändert werden.

Caratteristiche

Processore

Questa scheda madre utilizza un tipo di presa a 478 pin di Pentium 4 che offre le seguenti caratteristiche:

- Alloggia processori Intel P4
- Supporto di un bus di sistema (FSB) da 800 MHz (solo tramite overlocking)/533 MHz
- Supporta CPU con tecnologia "Hyper Threading"

La tecnologia "Hyper-Threading" (HT) abilita il sistema operativo a credere di essere collegato a due processori, consentendo di eseguire in parallelo due Thread, entrambi su processori "logici" separati, all'interno dello stesso processore fisico.

Nota: si noti che la presente scheda madre supporta solo 533 MHz di FSB; 800 MHz di FSB sono disponibili tramite overlocking ma potrebbero derivare condizioni di instabilità.

Chipset

I chipset SiS661GX Northbridge (NB) e SiS964L Southbridge (SB) sono basati su un'architettura innovativa e scalabile di provata affidabilità e di eccellenti prestazioni.

SiS661GX (NB)

- Supporto di 12 transazioni outstanding e "completion out-of-order".
- Compatibile con SiS MuTIOL 1G a elevato volume di dati interconnesso al supporto I/O SiS964 MuTIOL 1G con bus dati a 16 bit bidirezionale per larghezza di banda di 1 GB/s in modalità 133 MHz x 4
- Supporta l'interfaccia AGP 8X/4X con Funzione Transizione Fast Write
- Supporta DDR400/333/266 SDRAM.

SiS964 L (SB)

- Supporto simultaneo di tutti i componenti DMA: doppio controller IDE, controller SATA, tre host controller USB 2.0/1.1, controller LAN MAC e controller DMA Audio/Modem
- Conforme alle specifiche PCI 2.3.
- Conforme alle specifiche AC'97 v2.3 con il supporto di 6 canali audio in uscita e HSP-Modem V.90.
- Controller USB 2.0 integrato con tre hub e otto porte funzione

Memoria

- Supporta un modulo di memoria SDRAM con DDR fino a DDR400/333/266
- Fino a 1 GB per ciascun DIMM con una capacità massima di memoria di 2 GB

Audio

- CODEC full-duplex stereo a 16 bit con velocità di campionamento di 48 KHz
- Conforme alla specifica AC'97 v2.3
- Ingresso CD differenziale di qualità superiore
- Supporto di velocità di campionamento doppia (96 KHz) per la riproduzione audio di DVD
- Compatibile con Direct Sound 3D™

Multi-Language Translation

Grafica

- Motore 3D a 256 bit a elevate prestazioni incorporato
- Motore triangle setup con architettura VLIW a virgola mobile a 32 bit integrato
- Pipeline di rendering a 2 pixel e 4 unità texture
- Supporto di velocità di clock del motore 3D fino a 133 MHz

Opzioni d'espansione

La scheda madre è dotata delle seguenti opzioni di espansione

- Uno slot AGP 3.5 8X/4X(supporta solo l'interfaccia 1.5V AGP)
- Due slot PCI v2.3 a 32 bit
- Due testate a passo profilo IDE a 40 per il supporto di fino a quattro dispositivi IDE
- Una interfaccia floppy disk
- Una slot Communications e Network Riser (CNR)

La scheda madre supporta la funzionalità di bus mastering UltraDMA con velocità di trasferimento di 133/100/66 MB/s.

LAN su scheda (Opzionale)

La scheda LAN integrata è dotata delle seguenti funzioni:

- Supporto di operazioni a 10/100 Mbps
- Supporto di funzionalità half/full duplex
- Conforme a IEEE 802.3/802.3u
- Velocità/Duplex/Auto-negotiation regolabili
- Funzionamento a 3,3 V con tolleranza di segnale I/O a 5 V

I/O integrato

La scheda madre ha una serie completa di porte e connettori I/O:

- Due porte PS/2 per mouse e tastiera
- Una porta seriale
- Una porta parallela
- Una porta VGA
- Quattro porte USB
- Una porta LAN (opzionale)
- Connettori audio per microfono, ingresso linea ed uscita linea

Firmware BIOS

La scheda madre impiega il software Award BIOS che abilita gli utenti a configurare molte caratteristiche di sistema, tra cui sono incluse le seguenti:

- Risparmio energetico
- Allarmi di riattivazione
- Parametri CPU
- Temporizzazione di CPU e memoria

Il Firmware può anche essere utilizzato per impostare i parametri di diverse velocità di temporizzazione del processore.



Alcune specifiche hardware ed elementi software sono soggetti a modifica senza preavviso.

Características

Procesador

Esta placa principal usa un tipo de zócalo de 478-pin del Pentium 4 que lleva las sigtes. características:

- Acomoda procesadores Intel P4
- Soporta un bus de sistema (FSB) hasta 800 MHz (solo con sobrecronometraje)/533 MHz
- Soporta CPU de tecnología "Hyper-Threading"

La tecnología "Hyper-Threading" habilita el sistema operativo para que piense como si estuviera conectado a dos procesadores, que permite dos hilos a correr en paralelo, ambos en procesadores "lógicos" dentro del mismo procesador físico.

Nota: observe que esta placa principal soporta solamente FSB 533 MHz; se logra el FSB 800 MHz con el sobrecronometraje pero ¡puede ser inestable!

Chipset

Los chipsets Northbridge SiS661GX (NB) y Southbridge SiS964L (SB) están basados en una arquitectura innovadora y escalable con fiabilidad y rendimiento comprobados.

SiS661GX (NB)

- Soporta 12 transacciones interrumpidas y terminación fallada.
- Acomoda el SiS MuTIOL 1G de alto rendimiento que interconecta al SiS964 MuTIOL 1G media I/O con bus de datos de 16-bit bidireccional para realizar la banda ancha de 1GB/s en 133 MHz x 4 modos
- Soporta la interfaz AGP 8X/4X c/ Transacción de Escritura Rápida
- Soporta DDR400/333/266 SDRAM

SiS964L (SB)

- Servicio concurrente de todos los Dispositivos DMA : Controladores IDE Dual, controlador SATA, tres controladores anfitriones USB 2.0/1.1, controlador LAN MAC y Controlador DMA Audio/Modem
- Conforme con la espec. PCI 2.3.
- Conforme con AC'97 v2.3 que soporta 6 Canales de salidas de sonido y V.90 HSP-Modem.
- Controlador USB 2.0 integrado con tres hubs de raíz y ocho puertos funcionales

Memoria

- Soporta DDR SDRAM hasta módulo de memoria DDR400/333/266 sin buffer
- Hasta 1 GB por DIMM con tamaño de memoria máximo hasta 2GB

Sonido

- CODEC de full duplex de estéreo 16-bit con índice de muestreo de 48KHz
- Conformidad con la especificación AC'97 v2.3
- Entrada CD diferencial de alta calidad
- Soporta índice de muestreo doble (96KHz) de la reproducción de audio DVD
- Compatible con Direct Sound 3D™

Graphics

- Una motor 3 D de 256-bit de alto rendimiento incorporado
- Motor de setup triangular VLIW de formato de punto flotante de 32-bit incorporado
- Líneas en tubo de rendición de 2 pixel incorporado y 4 unidades de textura
- Soporta hasta una velocidad de reloj de motor 3D de 133 MHz

Opciones de expansión

La placa principal viene con las sigtes. opciones de expansión:

- Una ranura conforme con AGP 3.5 con la velocidad 8X/4X (soporta interfaz 1.5V AGP solamente)
- Dos ranuras conforme con 32-bit PCI v2.3
- Dos cabezales de bajo perfil IDE de 40-pin que soporta hasta cuatro dispositivos IDE
- Una interfaz de lector de floppy
- Una ranura de Communications Network Riser (CNR)

Esta placa principal soporta mastering de bus UltraDMA con índices de transferencia de 133/100/66 MB/s.

LAN en abordo (Optativo)

El LAN abordo provee las sigtes. características:

- Soporta operación de 10/100Mbps
- Soporta operación duplex medio/completo
- Soporta la conformidad IEEE 802.3/802.3u
- Velocidad/duplex/autonegociación ajustables
- Operación de 3.3V con tolerancia de señal IO de 5V

I/O integrado

La placa base tiene un conjunto completo de puertos I/O y conectores:

- Dos puertos PS/2 para ratón y de teclado
- Un puerto serie
- Un puerto paralelo
- Un puerto VGA
- Cuatro puertos USB
- Un puerto LAN (optativo)
- Clavijas de audio para micrófono, entrada de línea y salida de línea

Firmware de BIOS

La placa base utiliza Award BIOS que permite a los usuarios configurar muchas funciones del sistema, incluyendo las siguientes:

- Administración de energía
- Alarmas de encendido
- Parámetros CPU
- Temporización de memoria y CPU

El firmware también puede utilizarse para ajustar los parámetros para diversas velocidades del reloj del procesador.



Algunas especificaciones de hardware y elementos de software están sujetos a cambios sin previo aviso.

Características

Processador

A placa principal usa um tipo de ficha de 478 pinos de Pentium 4 que possui as seguintes características:

- Acomoda processadores Intel Intel P4
- Suporta um bus de sistema (FSB) até 800 MHz (somente através de sobre-temporização)/533 MHz
- Suporta CPU de tecnologia "Hyper-Threading"

A tecnologia "Hyper-Threading" permite que o sistema operativo "pense" que está ligado a dois processadores, permitindo que sejam executados dois threads em paralelo, ambos em processadores

Nota: Utilizadores tenham em atenção que esta motherboard suporta somente FSB 533 MHz; FSB 800 MHz pode ser atingido através de sobre-temporização mais poderá tornar-se instável!

Chipset

O SiS661GX Northbridge (NB) e o SiS964L Southbridge (SB) baseia-se numa inovadora arquitectura escalável, com confiança e desempenho comprovados.

- | | |
|--------------------------|--|
| SiS661GX
(NB) | <ul style="list-style-type: none"> • Suporta 12 outstanding transactions e "out-of-order completion" • Acomoda SiS MuTIOL 1G de elevada produtividade interligando-se a SiS964 MuTIOL 1G media I/O com bus de dados de 16 bits bi-direccional para executar largura de banda de 1GB/seg. em 133 MHz x 4 modos • Suporta AGP 8X/4X Interface com Transação de Escrita Rápida • Suporta DDR400/333/266 SDRAM |
| SiS964L
(SB) | <ul style="list-style-type: none"> • Manutenção concorrente de todos os dispositivos DMA: Controladores IDE Duplos, controlador SATA, três controladores host USB 2.0/1.1, Controlador LAN MAC e Controlador DMA Áudio/Modem • Em conformidade com a especificação PCI 2.3 • Compatível com AC'97 v2.3, suporta 6 canais de saída de áudio e a norma V.90 HSPModem • Controlador USB 2.0 Integrado com três hubs de raiz e oito portas de função |

Memória

- Suporta o módulo de memória DDR400/333/266 sem buffers DDR SDRAM
- Até 1 GB por DIMM com tamanho máximo de memória até 2 GB

Áudio

- CODEC duplo completo estéreo de 16 bit com taxa de amostragem de 48KHz
- Cumpre com especificação AC'97 v2.3
- Entrada para CD com diferencial de alta qualidade
- Suporta taxa de amostragem dupla (96KHz) de reprodução áudio de DVD
- Compatível com Direct Sound 3D™

Multi-Language Translation

Gráficos

- Incorporado com dispositivo 3D de 256 bits de elevada performance
- Incorporado com dispositivo de configuração triangular VLIW com formato de ponto flutuante de 32 bit
- Incorporado com 2 redes de fusão de pixels e 4 unidades de textura
- Suporta até 133 MHz de velocidade de temporização do dispositivo 3D

Opções de expansão

A placa principal vem equipada com as seguintes opções de expansão:

- Uma ranhura compatível com AGP 3.5 com uma velocidade de 8X/4X (suporta apenas 1.5V AGP)
- Dois ranhuras compatíveis com PCI v2.3 de 32 bits
- Dois colectores de perfil baixo IDE com 40 pinos suportando até quatro dispositivos IDE
- Uma interface da unidade de disquete
- Uma ranhura de Aumento da Rede de Comunicações (CNR)

A placa principal suporta UltraDMA bus mastering com taxas de transferência de 133/100/66 MB/seg.

LAN integrada (Opcional)

A LAN incorporada oferece as seguintes características:

- Suporta funcionamento até 10/100Mbps
- Suporta funcionamento duplex pela metade/total
- Suporta compatibilidade com IEEE 802.3/802.3u
- Velocidade/duplex/auto-negociação ajustáveis
- Funcionamento 3.3V com tolerância de sinal de 5V IO

E/S integradas

A placa principal conta com um conjunto completo de portas e conectores E/S:

- Duas portas PS/2 para o rato e o teclado
- Uma porta de série
- Uma porta paralela
- Uma porta VGA
- Quatro portas USB
- Uma porta LAN (opcional)
- Tomadas de áudio para microfone, linha de entrada e linha de saída

Firmware do BIOS

A placa principal usa o Award BIOS que permite aos usuários configurar vários recursos do sistema, como:

- Gerenciamento de energia
- Alarmes de reativação
- Parâmetros da CPU
- Sincronização da CPU e memória

O firmware também pode ser usado para definir os parâmetros de diferentes velocidades de clock do processador.



Alguns itens de software e especificação de hardware estão sujeitos a alterações sem prévio aviso.

機能

プロセッサ

本マザーボードは 478ピン・ソケット式のPentium 4プロセッサに対応し、次の特徴があります：

- Intel P4プロセッサに対応
- システム・バス(FSB)を800 MHz (オーバークロッキングの場合のみ)/533 MHzまでサポート
- 塔nイパースレッド 技術をサポート

"Hyper-Threading"技術というのは、事実上1つのプロセッサ(物理上のプロセッサ)を、2つのプロセッサ(論理上のプロセッサ)が存在するかのようにオペレーションシステムに認識させることで、同一の物理上のプロセッサで2つの電算スレッドを同時に執行させる技術です。

注意:本マザーボードは、通常、FSBを 533 MHzまでサポート可能ですが、800 MHz へはオーバークロッキングを行った場合のみに可能ですが、システムが不安定になる恐れがあります。

チップセット

SiS661GX Northbridge(NB)およびSiS964L Southbridge(SB)チップセットは、実証された信頼性と性能を持つ革新的で拡張性のあるアーキテクチャに基づいています。

- | | |
|--------------------------|--|
| SiS661GX
(NB) | <ul style="list-style-type: none"> • 12つの未解決トランザクション(outstanding transaction)と乱終了(out-of-order completion)に対応可能 • 高性能 SiS MuTIOL 1Gを搭載してSiS964 MuTIOL 1G メディアI/O間を双方向16ビットデータバスで接続することで、133 MHz x 4 モードでの1GB/秒帯域幅を実現 • 高速書き込み可能なAGP 8X/4Xインターフェースをサポートし、AGP v3.0に対応 • DDR400/333/266 SDRAM対応 |
| SiS964L
(SB) | <ul style="list-style-type: none"> • すべてのDMAデバイスの同時稼動が可能、これらのデバイスにはデュアルIDE コントローラ、SATA コントローラ、3つのUSB 2.0/1.1 ホストコントローラ、LAN MAC コントローラ、およびオーディオ/モテムDMA コントローラがある • PCI 2.3仕様に準拠 • AC' 97 v2.3に準拠し、6 チャンネルオーディオ出力と V.90 HSP-モテムをサポート • 統合したUSB 2.0コントローラで、3つのルートハブと8つのポートを提供 |

メモリー

- DDR400 /333/266 の非バッファ DDR SDRAMメモリモジュールに対応
- それぞれのDIMMに1 GBのメモリー容量の搭載が可能で、合計2 GBまで可能

オーディオ

- 16ビットのステレオ全二重CODECで、48KHzサンプリングレートを導入
- AC' 97 v2.3仕様に準拠
- 高品質の差動式CD入力をサポート
- DVDオーディオ信号再生のダブルサンプリングレート(96KHz) をサポート
- Direct Sound 3D™ に対応

グラフィック

- 高性能256ビット3D エンジン在内蔵
- 32ビット浮動小数点形式VLIWトライアングルセットアップエンジンを内蔵
- 2つのpixel rendering pipelineと4つのtexture unit在内蔵
- 最大133 MHz の3D エンジンクロック速度をサポート

拡張オプション

このメインボードには次の拡張オプションがあります:

- 8X/4Xモード対応のAGP3.5仕様スロット(1.5VAGPインターフェースのみに対応)が1つ
- 32ビットPCIスロットが2つ
- 2つの40ピンIDE low profile ヘッダーで4つまでのIDE装置の取り付けをサポート
- フロッピーディスクインターフェースが1つ
- CNR (Communication Networking Riser) スロットが1つ

本品は133/100/66 MB/秒の転送率の UltraDMA バスマスタリングをサポートします。

オンボードLAN (オプション)

オンボードLANは、次の機能を提供します

- 10/100Mbps動作に対応
- 半/全二重動作に対応
- IEEE 802.3/802.3uに準拠
- 高速/二重/自動交渉が切り替え可能
- 3.3V 動作仕様で、5Vの入出力信号を許容

統合I/O

マザーボードには、次のI/Oポートやコネクタを揃えています

- マウスとキーボード用のPS/2ポートが2つ
- シリアルポート が1つ
- パラレルポート が1つ
- VGAポート が1つ
- USBポート が4つ
- LANポート が1つ(オプション)
- マイク、ラインイン、ラインアウト用オーディオジャック

BIOSファームウェア

本マザーボードはAward BIOSを採用することにより、次の機能を含めた多様なシステム構成を可能にしました

- 電源管理
- ウェークアップアラーム
- CPUパラメータ
- CPUおよびメモリのタイミング

さらに、所定のパラメータを設定することによって、プロセッサのクロック速度を変更することもできます。



一部のハードウェア仕様とソフトウェアアイテムは、予告なしに変更することがありますので、ご了承ください。

특징

프로세서

본 마더보드는 팬티엄 4의 478 핀 소켓을 탑재하였으며 그 특성은 다음과 같습니다.

- Intel P4프로세서 사용
- 최대 시스템 버스 (FSB) 800 MHz (오버클럭킹의 경우)/533 MHz 지원
- "Hyper-Threading" 기술 CPU 지원

"Hyper-Threading(HT)" 기술은 운영체제로 하여금 두 개의 프로세서에 연결된 것으로 인식하게 하여 동일한 물리적 프로세서 내의 각기 분리된 논리적 프로세서에서 두 개의 스레드를 병렬로 실행할 수 있게 합니다.

참고: 본 마더보드는 FSB 533 MHz 만 지원합니다. FSB 800 MHz는 오버클럭킹으로 가능해지지만 상태가 불안정합니다!

칩셋

SiS661GX Northbridge (NB) 와 SiS964L Southbridge (SB) 칩셋은 혁신적이고 범용성을 지닌 아키텍처를 바탕으로 인정한 신뢰성과 성능을 지닌다.

SiS661GX (NB)

- 12 개의 아웃스탠딩 트랜잭션(Outstanding Transaction) 및 비순차적 트랜잭션(out-of-order Transaction) 완성 지원
- 고 스�루트 SiS MuTIOL 1G 로 SiS964 MuTIOL 1G 미디어 I/O 에 쌍방향으로 연결 16 비트 데이터 버스로 133 MHz x 4 모드에서 대역폭 1GB/s 실행
- AGP 8X/4X 인터페이스 / Fast Write Transaction 지원
- DDR400/333/266 SDRAM 지원

SiS964L (SB)

- 모든 DMA 장치의 동시 사용: 듀얼 IDE 컨트롤러, SATA 컨트롤러, 3 개의 USB 2.0/1.1 호스트 컨트롤러, LAN/MAC 컨트롤러 및 오디오/모뎀 DMA 컨트롤러
- PCI 2.3 사양 호환.
- 6 채널의 오디오 출력과 V.90 HSP-모뎀을 지원하는 AC'97 v2.3 호환.
- 3 개의 루트 허브와 8 개의 기능 포트를 지닌 통합 USB 2.0 컨트롤러

메모리

- DDR 400/333/266 unbuffered DDR SDRAM 메모리 모듈 지원
- 각 DIMM 메모리 1 GB, 최대 메모리 크기 2GB

오디오

- 샘플링 속도 48KHz 의 16 비트 스테레오 full-duplex 코덱
- AC'97 v2.3 사양 부합
- 고품질 차동 CD 입력
- DVD 오디오 재생에 더블 샘플링 속도 (96KHz) 지원
- Direct Sound 3D™ 호환

그래픽

- 고성능 256 비트 3D 엔진 내장
- 32 비트 플로팅 포인트 포맷 VLIW 트라이앵글 셋업 엔진 내장
- 2 개의 픽셀 렌더링 파이프라인 및 4 개의 텍스처 유닛 내장
- 최대 133 MHz 3D 엔진 클럭 속도 지원

확장 옵션

마더보드에는 다음과 같은 확장 옵션이 있습니다.

- 8X/4X 속도의 AGP 3.5 호환 슬롯 1개(1.5V AGP 인터페이스만 지원)
- 32 비트 PCI v2.3 호환 슬롯 2 개
- 2 개의 40 핀 IDE low profile 헤더, 최대 4 개의 IDE 장치 지원
- 플로피 디스크 드라이브 인터페이스 1 개
- Communications Network Riser (CNR) 슬롯 1 개

본 마더보드는 전송 속도 133/100/66 MB/s 로 UltraDMA 버스 마스터링을 지원합니다.

온보드 LAN(선택 품목)

온보드 LAN에는 다음과 같은 특징이 있습니다.

- 10/100Mbps 오퍼레이션 지원
- half/full 듀플렉스 오퍼레이션 지원
- IEEE 802.3/802.3u 지원
- Speed/duplex/auto negotiation 조정 가능
- 3.3V 오퍼레이션, 5V IO signal tolerance

통합 I/O

마더보드에는 충분한 수의 I/O 포트 및 커넥터가 있습니다.

- 마우스 및 키보드용 PS/2 포트 2개
- 시리얼 포트 1개
- 병렬 포트 1개
- VGA 포트 1개
- USB 포트 4개
- LAN 포트 1개(선택 품목)
- 마이크, 라인 인 및 라인 아웃용 오디오 단자

바이오스 펌웨어

마더보드는 다음의 기능은 물론 많은 시스템 기능을 설정할 수 있게 하는 Award 바이오스를 사용합니다.

- 전원 관리
- 웨이크업(Wake-up) 경보
- CPU 매개 변수
- CPU 및 메모리 타이

펌웨어를 사용하여 다른 프로세서 클럭 속도에 대한 매개 변수를 설정할 수도 있습니다.



일부 하드웨어 사양 및 소프트웨어 항목은 사전 통보 없이 변경될 수 있습니다.

Multi-Language Translation

功能

處理器

本主機板可安裝一個 478 針型之 Pentium 4 處理器，具有如下功能：

- 支援 Intel P4 處理器
- 支援高達 800 MHz (僅限於超頻時) / 533 MHz 的系統匯流排 (FSB)
- 支援使用超執行緒 (Hyper-Threading) 技術之 CPU

利用 "超執行緒 (HT)" 技術，可使作業系統在相當於裝上了兩具處理器的狀態下運作：利用一個實體處理器模擬出兩個獨立的 "邏輯" 處理器，同時執行兩個工作緒。

注意：本主機板僅支援 FSB 533 MHz。本主機板之 FSB 雖可藉由超頻方式達到 800 MHz，然而系統可能會有不穩定的情形發生！

晶片組

SiS661GX 北橋及 SiS964L 南橋晶片組，採用了獨創且具有擴充功能的架構，能夠發揮最佳的穩定性及功能。

SiS661GX (NB)

- 可處理 12 個未完成傳輸 (outstanding transactions) 和亂序完成 (out-of-order completion)
- 搭載高效能 SiS MuTIOL 1G 以雙向 16 位元資料匯流排連接 SiS964 MuTIOL 1G 媒體輸出入埠，在 133 MHz x 4 模式下提供 1GB/秒頻寬
- 支援具有快寫功能之 AGP 8X/4X 介面
- 支援 DDR400/333/266 SDRAM

SiS964L (SB)

- 同時對所有如下 DMA 裝置提供服務：雙 IDE 控制器、SATA 控制器、3 個 USB 2.0/1.1 主控制器、LAN MAC 控制器、及音訊/數據機 DMA 控制器
- 符合 PCI 2.3 規格
- 符合 AC'97 v2.3 規格，支援 6 聲道音訊輸出及 V.90 HSP 數據機
- 整合有 USB 2.0 控制器，具有 3 個集線器及 8 個功能埠

記憶體

- 支援 DDR400 / 333 / 266 之非緩衝 DDR SDRAM 記憶體模組
- 各 DIMM 可安裝 1 GB 的記憶體，合計最多可安裝 2 GB 的記憶體

音效

- 16 位元立體聲全雙工 CODEC，提供 48KHz 取樣率
- 相容於 AC'97 v2.3 規格
- 高品質差動 CD 輸入
- 支援 DVD 音訊播放時的雙取樣率 (96KHz)
- Direct Sound 3D™ 相容

繪圖卡

- 內建高效能256位元3D繪圖引擎
- 內建32位元浮點方式VLIW 幾何運算圖形加速引擎(triangle setup engine)
- 內建2組像素著色流程(rendering pipeline)及4組材質單元(texture unit)
- 支援高達133 MHz 3D引擎時脈

擴充選項

主機板機載有下列擴充選項功能:

- 1個支援8X/4X 模式的AGP 3.5相容插槽(僅支援1.5伏特電壓規格介面)
- 2個32位元PCI插槽
- 2個40針IDE短接頭, 可支援高達4個IDE裝置
- 1個軟碟機介面
- 1個通訊網路附加卡(Communications Network Riser, CNR)插槽

本主機板支援傳輸率達133/100/66 MB/秒的 UltraDMA 匯流排主控功能。

機載LAN(選項)

機載LAN功能具有如下功能:

- 支援10/100Mbps動作
- 支援半/全雙工動作
- 支援IEEE 802.3/802.3u
- 可自調的快速/雙工/自動協商功能
- 採3.3V運作方式, 並容許5V輸出入信號

整合 I/O

主機板具有一組齊全的 I/O 連接埠及連接頭:

- 2個PS/2埠, 供滑鼠與鍵盤使用
- 1個串列埠
- 1個平行埠
- 1個VGA埠
- 4個USB埠
- 1個區域網路埠(選項)
- 麥克風音頻插座、線性輸入及線性輸出

BIOS 韌體

本主機板使用 Award BIOS, 使用者可以組態設定許多系統功能, 包括如下:

- 電源管理
- 喚醒警鈴
- CPU 參數
- CPU 及記憶體の時脈定時

此外, 也可藉由參數的設定, 調整處理器的時脈速度。



部份硬體規格和軟體內容可能會在未經通知的情況下更動, 敬請見諒。

功能

处理器

此主板使用 478-pin 插座 Pentium 4 CPU，此插座具有以下特点：

- 支持 Intel P4 处理器
- 支持 800 MHz (仅超频时) /533 MHz 系统总线 (FSB)
- 支持“多线程”技术 CPU

“多线程”技术可以让操作系统认为自己连接了两个处理器，允许两个线程并行运行，每个线程位于同一处理器中的单独“逻辑”处理器中。

说明：用户请注意，此主板只支持 FSB 533 MHz，可超频支持 FSB 800 MHz，但是这样可能不稳定！

芯片组

SiS661GX 北桥 (NB) 和 SiS964L 南桥 (SB) 芯片组是基于一种新型的、可扩展的架构，能提供已经证明的可靠性和高性能。

SiS661GX (NB)

- 支持 12 个未决事务处理和乱序完成
- 支持高吞吐量 SiS MuTIOL 1G 与 SiS964 MuTIOL 1G 媒体 I/O 互连 (带双向 16 位数据总线，在 133 MHz x 4 模式下提供 1GB/s 带宽)
- 支持带快写处理功能的 AGP 8X/4X 接口
- 支持 DDR400/333/266 SDRAM

SiS964L (SB)

- 所有 DMA 设备的并发服务：双 IDE 控制器、SATA 控制器、3 个 USB 2.0/1.1 主控制器、LAN MAC 控制器和音频/调制解调器 DMA 控制器
- 符合 PCI 2.3 规格
- 符合 AC'97 v2.3 (支持 AC'97 扬声器 6 通道输出) 标准和 V.90 HSP 标准
- 集成 USB 2.0 控制器，带有 3 个 Root Hub 和 8 个功能端口

内存

- 支持 DDR400/333/266 非缓冲 DDR SDRAM 内存模块
- 每个 DIMM 最大支持 1 GB，总共可支持 2 GB

音频

- 具有 48KHz 采样速率的 16 位全双工 CODEC (编解码器)
- 兼容 AC'97 v2.3 规格
- 高质量差分 CD 输入
- 支持 DVD 音频播放的双采样速率 (96KHz)
- 符合 Direct Sound 3D™ 规格

图形

- 内建高性能 256 位 3D/2D 引擎
- 内建 32 位浮点式 VLIW 三角设置引擎
- 内建 2 个像素着色管道和 4 个纹理单元
- 133 MHz 3D 引擎时钟速度

扩展选项

此主板提供如下扩展选项：

- 1 个 8X/4X AGP 3.5 插槽(只支持 1.5V AGP 接口)
- 2 个 32 位 PCI v2.3 扩展槽
- 2 个 40-pin IDE 紧凑型接口，支持 4 个 IDE 设备
- 1 个软驱接口
- 1 个通信网络转接 (CNR) 插槽

此主板支持 UltraDMA 总线控制，传输速率可达 133/100/66 MB/s

Onboard LAN (可选)

板上集成的 LAN 提供以下功能

- 支持 10/100Mbps 工作
- 支持半双工/全双工工作
- 符合 IEEE 802.3/802.3u 标准
- 速度/双工/自动侦测可调节
- 3.3V 操作，5V IO 信号容错

集成 I/O

此主板具有完整的 I/O 端口和插孔：

- 2 个用于连接鼠标和键盘的 PS/2 端口
- 1 个串口
- 1 个并口
- 1 个 VGA 端口
- 4 个 USB 端口
- 1 个 LAN 端口 (可选)
- 麦克风、线入和线出声音插孔

BIOS

此主板使用 Award BIOS，可以让用户自己配置以下系统功能：

- 电源管理
- 唤醒报警
- CPU 参数
- CPU 和记忆定时

还可用于设置不同处理器时钟速度的参数



某些硬件规格和软件项目若有更改恕不另行通知。

Характеристики

Процессор

Эта материнская плата включает 478-контактный сокет типа Pentium 4 и обладает следующими характеристиками:

- Размещает процессоры Intel P4
- Поддерживает системную шину (FSB) со скоростью до 800 МГц (только за счет разгона процессора)/533 МГц
- Поддерживает технологию CPU "Hyper-Threading"

Технология "Hyper-Threading" «убеждает» операционную систему в том, что в машине имеется два процессора; это позволяет параллельно обслуживать два процесса, причем каждый из процессов обслуживается отдельным «логическим» процессором в пределах одного физического процессора.

Внимание: Пользователи должны помнить, что эта материнская плата поддерживает системную шину FSB со скоростью только 533 МГц; FSB 800 МГц достигается за счет разгона и может вызывать нестабильность системы!

Чипсет

Чипсеты SiS661GX «Северный мост» (Northbridge, NB) и SiS964L «Южный мост» (Southbridge, SB) построены с использованием инновационной масштабируемой архитектуры, обеспечивающей высокую надежность и производительность.

SiS661GX (NB)

- Поддерживает одновременное выполнение 12 операций и внеочередное завершение операций
- Размещает высокопропускное соединение SiS MuTIOL 1G с мостиком SiS964 MuTIOL 1G с двусторонней 16-битной шиной данных и обеспечивает скорость передачи данных 1 ГБ/с в режиме 133 МГц x4
- Поддерживает интерфейс AGP 8X/4X Interface с функцией Fast Write
- Поддерживает DDR400/333/266 SDRAM

SiS964L (SB)

- Параллельное обслуживание всех DMA-устройств : Двойной IDE-контроллер, SATA-контроллер, три USB 2.0/1.1 хост-контроллера, контроллер LAN MAC и аудио/модем DMA-контроллер
- Совместимость с PCI 2.3
- Совместима с AC'97 v2.3b поддерживает 6-канальный аудиовыход и модем V.90 HSP
- Встроенный контроллер USB 2.0 с трехканальным концентратором и восьмью функциональными портами

Память

- Поддерживает модули памяти DDR400/333/266 и небуферизируемой памяти DDR SDRAM
- Поддерживает до 1 ГБ DIMM при максимальном объеме памяти 2 ГБ

Аудио

- 16-битовый стерео КОДЕК full-duplex с частотой сэмплирования 48КHz
- Совместим со спецификацией AC'97 v2.3
- Высококачественный дифференциальный вход с CD
- Поддержка режима двойного сэмплирования (96КHz) при прослушивании аудио-DVD
- Совместимость с Direct Sound 3D™

Multi-Language Translation

Графика

- Встроенный скоростной 256-битный движок 3D
- Интегрированный 32-битовый модуль VLIW triangle setup для вычислений в режиме плавающей запятой
- Встроенный 2-пиксельный движок рендеринга с 4 текстурными единицами
- Поддержка тактовой частоты 3D до 133 МГц

Возможности расширения

Существуют следующие опции расширения данной материнской платы:

- Один слот, совместимый с AGP 3.5, обеспечивающий скорость 8X/4X (Поддерживает только интерфейс 1.5V AGP)
- Два 32-битных слотов PCI v2.3
- Два 40-штырьковых низкопрофильных разъема IDE с поддержкой до четырех устройств IDE
- Один разъем для накопителя на гибких дисках
- Один слот CNR

Эта материнская плата поддерживает режим UltraDMA со скоростью трансфера 133/100/66 МБ/с.

Встроенный сетевой адаптер LAN (опционально)

Встроенный сетевой адаптер LAN обладает следующими характеристиками:

- Поддержка режимов 10/100Mbps
- Поддержка режимовполовинного/полного дуплекса
- Совместимость с IEEE 802.3/802.3u
- Регулируемая скорость выбора режимов дуплекс/автовыбор
- Рабочее напряжение 3.3V с толеранцией величины сигнала входа/выхода 5V

Интегрированный вход/выход

Плата снабжена полным набором портов входа/выхода и разъемов:

- Два порта PS/2 для подключения мыши и клавиатуры
- Один серийный порт
- Один параллельный порт
- Один порт VGA
- Четыре порта USB
- Один порт LAN (опционально)
- Гнездо для подключения микрофона, гнезда аудио-входа и выхода

BIOS

Плата работает под Award BIOS, который позволяет пользователю конфигурировать различные характеристики системы:

- Управление питанием
- Сигналы пробуждения системы
- Параметры CPU
- Время доступа для CPU и памяти

BIOS допускает также установку параметров для различных частот процессора.



Некоторые параметры платы и характеристики ее программного обеспечения могут быть изменены без предварительного уведомления.

Cechy

Procesor

Ta płyta główna posiada 478-nóżkowe złącze typu Pentium 4 i zapewnia następujące właściwości:

- Przystosowana do obsługi procesorów Intel P4
- Obsługuje szynę systemową (FSB) z częstotliwością do 800 MHz (za pomocą przetaktowania)/533 MHz
- Zabezpiecza technologią CPU "Hyper-Threading"

Technologia "Hyper-Threading" powoduje, że system "myśli", że posiada dwa procesory i wykonuje równoległe dwa procesy; za wykonanie każdego procesu odpowiedzialny jest jeden z dwóch "logicznych" procesorów w ramach jednego fizycznego procesora

Uwaga: Użytkownicy powinni pamiętać, że ta płyta obsługuje szynę FSB tylko z częstotliwością 533 MHz, a częstotliwość FSB 800 MHz jest osiągalna na drodze przetaktowania, co może być przyczyną niestabilności systemu.

Chipset

Mostek północny (NB) SiS661GX i mostek południowy (SB) SiS964L chipsetu oparty jest na nowatorskiej i skalowalnej architekturze o sprawdzonej niezawodności i funkcjonalności.

SiS661GX (NB)

- Obsługuje wykonywanie 12 równoległych operacji i zakończenie operacji po za kolejnością
- Obsługuje szybkie łącze SiS MuTIOL 1G z SiS964 MuTIOL 1G media I/O z dwukierunkową 16-bitową szyną danych, zabezpiecza szybkość przesyłu 1GB/s w trybie 133 MHz x4
- Obsługuje złącze AGP 8X/4X z opcją Fast Write
- Obsługuje DDR400/333/266 SDRAM

SiS964L (SB)

- Obsługuje wszystkie współczesne urządzenia DMA: kontrolery dual IDE, kontrolery SATA, trzy kontrolery USB 2.0/1.1, kontroler LAN MAC i kontroler audio/modem DMA
- Zgodny z PCI w wersji 2.3
- Zgodna z AC'97 w wersji 2.3, obsługuje 6-kanalowe wyjście audio oraz modem V.90 HSP
- Zintegrowany kontroler USB 2.0 z trójdrożnym rozdzielnikiem i ośmifunkcyjnym złączem

Pamięć

- Obsługuje pamięć DDR400/333/266 niebuforowanej DDR SDRAM
- Akceptuje DIMM do 1GB, a maksymalna pamięć do 2GB

Audio

- 16-bitowe stereo full-duplex CODEC z 48KHz próbkowaniem
- Zgodny z AC'97 w wersji 2.3
- Wysokiej jakości różniczkowe wejście CD
- Obsługuje podwójne próbkowanie (96KHz) DVD audio playback
- Zgodny z Direct Sound 3D™

Grafika

- Wbudowany 256 bitowy, wysokosprawny sterownik 3D
- Wbudowany 32-bitowy procesor formatu zmiennoprzecinkowego VLIW triangle setup
- Wbudowany dwupikselowy, wizualizujący układ potokowy oraz 4 jednostki teksturowe
- Obsługuje zegar sterownika 3D do 133MHz

Możliwości rozbudowy

Płyta główna wyposażona jest w następujące gniazda:

- Jedno gniazdo zgodne z AGP 3.5 o szybkości 8X/4X (obsługuje tylko karty AGP zasilane 1.5V).
- Dwa 32 bitowych gniazd PCI zgodnych z wersją 2.3.
- Dwa 40-nóżkowe niskoprofilowe złącza IDE obsługujące do czterech urządzeń IDE
- Jedno złącze obsługujące stacje dyskietek
- Jedno gniazdo CNR opcjonalnie

Ta płyta główna obsługuje szynę UltraDMA z częstotliwościami 133/100/66 MB/s.

Zintegrowana obsługa sieci LAN (opcjonalnie)

Zintegrowana obsługa sieci LAN posiada następujące właściwości:

- Obsługuje procesy 10/100 Mbps
- Obsługuje procesy half/full duplex
- Obsługuje procesy zgodne z IEEE 802.3/802.3u
- Regulowalna szybkość wybierania trybów duplex|auto
- Napięcie robocze 3.3V z tolerancją sygnału we/wy 5V

Zintegrowane We/Wy

Płyta główna wyposażona jest w pełny zestaw gniazd i złączy We/Wy:

- Dwa gniazda PS/2 dla myszy i klawiatury
- Jedno gniazdo szeregowo
- Jedno gniazdo równoległe
- Jedno gniazdo VGA
- Cztery gniazda USB
- Jedno gniazdo LAN (opcjonalnie)
- Gniazdo wejściowe mikrofonowe, gniazdo wejściowe i wyjściowe dźwięku (audio)

Firmowy BIOS

Płyta główna wyposażona jest w BIOS firmy Award, który pozwala użytkownikowi konfigurować wiele cech systemu włączając w to następujące właściwości:

- Zarządzanie poborem mocy
- Alarmy typu Wake-up
- Parametry pracy procesora
- Ustalenia szybkości pracy procesora i pamięci

BIOS może być używany do ustalania parametrów wpływających na szybkości pracy zegara procesora.



Niektóre parametry dotyczące płyty i jej oprogramowania mogą ulec zmianie bez uprzedniego powiadomienia.

Multi-Language Translation

Vlastnosti

Procesor

Tato základní deska využívá 478kolíkovou patici pro procesory Pentium 4 a vyznačuje se následujícími vlastnostmi:

- Použití pro procesory Intel P4 s jádrem
- Podporuje taktování systémové sběrnice (FSB) na frekvenci až 800 (pouze přetaktováním) / 533 MHz
- Podporuje technologii CPU „Hyper-Threading“

Technologie „Hyper-Threading“ umožňuje operačnímu systému pracovat tak, jako by byl připojen ke dvěma procesorům, protože je možné pracovat se dvěma toky programového kódu (vlákny) paralelně najednou, přičemž jsou k dispozici samostatné „logické“ procesory umístěné v rámci jednoho fyzického procesoru.

Poznámka: Povšimněte si, že tato základní deska podporuje pouze frekvenci FSB 533 MHz; frekvence FSB 800 MHz je možné dosáhnout pouze přetaktováním, avšak v takovém stavu nemusí být deska stabilní!

Čipová sada

Čipová sada SiS661GX s northbridge (NB) a southbridge (SB)SiS964L je založena na inovativní a škálovatelné architektuře s ověřenou spolehlivostí a výkonem.

SiS661GX (NB)

- Podpora 12 outstanding transactions a out-of-order completion.
- Podpora vysoké průchodnosti SiS MuTIOL 1G s propojením na mediální vstup/výstup SiS964 MuTIOL 1G s obousměrnou 16bitovou datovou sběrnicí k zajištění šířky pásma 1 GB/s na frekvenci 133 MHz x 4.

SiS964L (SB)

- Podpora rozhraní AGP 8X/4X s rychlým zápisem
- Podpora paměťových modulů DDR400/333/266 SDRAM
- Současná obsluha všech zařízení DMA: duální řadiče IDE, řadič SATA, tři hostitelské řadiče USB 2.0/1.1, řadič LAN MAC a řadič audio/modemu DMA
- Splňuje požadavky standardu PCI 2.3
- Splňuje požadavky standardu AC'97 v2.3 s podporou 6kanálového zvuku a modemu V.90 HSP
- Integrovaný řadič USB 2.0 se třemi kořenovými rozbočovači a osmi funkčními porty.

Paměť

- Podporuje paměťové moduly DDR SDRAM, DDR400/333/266 bez vyrovnávací paměti
- Až 1 GB paměti na jeden modul DIMM s maximální velikostí paměti do 2 GB

Audio

- 16bitový stereo plně duplexní kodek se vzorkovací frekvencí 48 kHz
- Splňuje požadavky standardu AC'97 v2.3
- Vysoce kvalitní diferenční vstup CD
- Podpora dvojnásobné vzorkovací frekvence (96 kHz) pro přehrávání DVD audio
- Kompatibilita s Direct Sound 3D™

Multi-Language Translation

Grafika

- Vestavěné vysoce výkonné 256bitové 3D grafické jádro
- Vestavěné 32bitové jádro pracující s formátem VLIW s plovoucí desetinnou čárkou
- 2 vestavěné pipeline vykreslování obrazových bodů a 4 texturovací jednotky
- Podpora taktovací frekvence 133 MHz 3D jádra

Možnosti rozšíření

Základní deska je dodávána s následujícími možnostmi rozšíření

- Jeden slot AGP 3.5 s přenosovými rychlostmi 8X/4X (podpora rozhraní – pouze 1,5 V AGP)
- Dva 32bitové patice PCI v2.3
- Dva nízkoprofilové 40kólkové konektory IDE podporující připojení čtyř zařízení standardu IDE
- Jedno rozhraní pro disketovou mechaniku
- Jedna patice CNR

Tato základní deska podporuje řízení sběrnice Ultra DMA s přenosovými rychlostmi 133/100/66 MB/s.

Vestavění síťové rozhraní LAN (volitelně)

Vestavěné síťové rozhraní LAN nabízí následující možnosti:

- Podpora provozu 10/100 Mbps
- Podpora plného/polovičného duplexního provozu
- Podpora standardu IEEE 802.3/802.3u
- Nastavitelná možnost řízení rychlost/duplex/auto
- Provoz s napájením 3,3 V s tolerancí signálu I/O 5 V

Integrovaný vstup/výstup

Základní deska je vybavena kompletní sadou vstupních portů a konektorů I/O:

- Dva porty PS/2 pro myš a klávesnici
- Jeden sériový port
- Jeden paralelní port
- Jeden port VGA
- Čtyři porty USB
- Jeden port LAN (volitelně)
- Zvukové konektory pro mikrofon, zvukový vstup a výstup

Firmware BIOS

Základní deska využívá BIOS formy Award, který uživateli umožňuje nakonfigurovat mnoho systémových parametrů, včetně následujících:

- Řízení spotřeby
- Alarmy při spouštění systému
- Parametry CPU
- Časování CPU a paměti

Firmware může být rovněž použit k nastavení parametrů pro různé taktovací frekvence procesoru.



Některé technické parametry hardware a software se mohou měnit bez předchozího upozornění.

Multi-Language Translation

Caracteristici

Procesorul

Această placă de bază utilizează Pentium 4 de tip 478-pin socket cu următoarele caracteristici:

- Funcționează cu procesoare Intel P4
- Suport pentru system bus (FSB) cu până la 800 MHz (doar prin overclocking)/533 MHz
- Este compatibilă cu unități centrale dotate cu tehnologia „Hyper-Threading”

Tehnologia „Hyper-Threading” permite sistemului de operare să funcționeze ca și cum ar exista două procesoare, putând fi rulate în paralel două fire, fiecare pe câte un procesor „logic” separat, aflate pe același procesor fizic.

Notă: Supunem atenției utilizatorilor faptul că această placă de bază asigură doar FSB 533 MHz; FSB 800 MHz se poate realiza prin overclocking însă poate fi instabil!

Setul de chipuri

Seturile de chipuri SiS661GX Northbridge (NB) și SiS964L Southbridge (SB) se bazează pe o arhitectură inovatoare și scalabilă, care s-a impus deja prin fiabilitate și performanță.

SiS661GX (NB)

- Suportă 12 tranzații nesoluționate și finalizarea corecțiilor erorilor
- Funcționează cu SiS MuTIOL 1G de mare capacitate pentru interconectarea cu I/O SiS964 MuTIOL 1G pentru suporturi cu bus sistem bidirecțional pe 16 biți, cu lățime de bandă de 1 GB/s în modul 133 MHz x4
- suportă interfață AGP 8X/4X cu tranzația de scriere rapidă
- Suportă module SDRAM DDR400/333/266

SiS964L (SB)

- Deservire concurentă a tuturor aparatelor DMA: controlere IDE duale, controler SATA, trei controlere gazdă USB 2.0/1.1, controler LAN MAC și controler DMA Audio/Modem
- Compatibil cu specificația PCI 2.3
- Compatibilă cu AC'97, versiunea 2.3, suportând 6 canale pentru ieșiri difuzor AC'97 și modem HSP V.90
- Controler USB 2.0 integrat, cu trei socluri de bază și opt porturi funcționale

Memoria

- Suportă module de memorie DDR SDRAM DDR400/333/266 fără zonă tampon
- Suportă module de până la 1 GB, cu capacitate maximă de 2 GB

Audio

- CODEC stereo cu duplex complet pe 16 biți, cu viteză de eșantionare de 48 kHz
- Compatibil cu specificația AC'97, versiunea 2.3
- Intrare CD diferențială de înaltă calitate
- Suportă frecvență de comutare dublă (96 kHz) pentru redarea audio de pe DVD
- Compatibil cu Direct Sound 3D™

Grafică

- Motor 3D pe 256 biți de înaltă performanță
- Format VLIW de calcul în triunghi în virgulă mobilă, de 32 biți, incorporat
- 2 canale de prelucrare pixeli și 4 unități pentru texturi
- Motorul 3D suportă o viteză de bază de până la 133 MHz

Opțiuni de extindere

Placa de bază este dotată următoarele posibilități de extindere:

- Un slot compatibil cu AGP 3.5 cu viteze de 8X/4X (suportă doar interfață AGP de 1,5 V)
- Două sloturi PCI de 32 biți compatibile cu versiunea 2.3
- Două socluri IDE plate de 40 care suportă cel mult patru unități IDE
- O interfață pentru unitate floppy
- Un slot CNR

Această placă de bază asigură UltraDMA bus mastering cu rată de transfer de 133/100/66 MB/s.

Onboard LAN (opțional)

Onboard LAN are următoarele caracteristici:

- Suportă funcționare 10/100 Mbps
- Suportă funcționare în regim semi-duplex/duplex complet
- Compatibil IEEE 802.3/802.3u
- Viteză/duplex/reglare automată ajustabilă
- Funcționare cu 3,3 V cu toleranță la semnale I/O de 5 V

I/O integrată

Placa de bază este dotată cu un set complet de porturi și conectoare I/O:

- Două porturi PS/2, pentru mouse și tastatură
- Un port serial
- Un port paralel
- Un port VGA
- Patru porturi USB
- Un port LAN (opțional)
- Mufe audio pentru microfon, intrare și ieșire audio

Firmware BIOS

Această placă de bază utilizează Award BIOS, care permite utilizatorului să configureze mai mulți parametri ai sistemului, cum ar fi:

- Gestionarea energiei
- Alarmer de trezire
- Parametri CPU
- Temporizare CPU și memorie

Acest firmware poate fi utilizat și pentru a seta parametrii diferitelor frecvențe de comandă ale procesorului.



Anumite specificații hardware și elemente de software pot fi modificate fără înștiințare prealabilă.

Спецификация

Процесор

Тази дънна платка използва 478-pin сокет за процесори Pentium 4 със следните спецификации:

- поддръжка на процесори Intel P4
- Поддръжка на системна шина (FSB) до 800 MHz (само чрез овърклокинг)/533 MHz
- поддръжка на процесори с технология "Hyper-Threading"

Технологията "Hyper-Threading" позволява да се "излъже" операционната система, че работи на два процесора, което дава възможност за паралелното изпълнение на две задачи на два отделни "логически" процесора в един и същ физически процесор.

Внимание: Моля отбележете, че дънната платка поддържа само FSB 533 MHz, а FSB 800 MHz може да бъде достигната само чрез овърклокинг, но това може да доведе до нестабилност на системата!

Чипсет

Чипсетът със северен мост SiS661GX и южен мост SiS964L е изграден на базата на оригинална архитектура с възможност за надстройка с доказана надеждност и производителност.

SiS661GX (NB)

- Поддръжка на 12 невыполненных транзакций и out-of-order completion
- Високоскоростен интерфейс SiS MuTIOL 1G за връзка с южния мост SiS964, SiS MuTIOL 1G media I/O с двупосочна 16 битова шина за данни и скорост 1GB/s в режим 133 MHz x 4.
- поддръжка на интерфейс AGP 8X/4X с Fast Write Transaction
- Поддръжка на модули памет DDR400/333/266 SDRAM

SiS964L (SB)

- Едновременна поддръжка на всички DMA устройства: два IDE контролера, SATA контролер, три USB 2.0/1.1 host контролера, LAN MAC контролер и Audio/Modem DMA контролер.
- поддръжка на шината PCI 2.3
- Съвместимост със спецификацията AC'97 v2.3 с поддръжка на 6-канално аудио и модем V.90 HSP.
- Интегриран USB 2.0 контролер с три колектора и осем функционални порта

Памет

- Поддръжка на модули памет DDR400/333/266 небуферизирана DDR SDRAM
- Поддръжка до 1 GB на слот DIMM с максимален капацитет до 2 GB

Audio

- 16-bit Stereo full-duplex CODEC с честота 48KHz
- съвместимост със спецификацията AC'97 v2.3
- висококачествен диференциален CD вход
- едновременно възпроизвеждане на 2 звукови потока (96KHz) на DVD аудио
- съвместимост с Direct Sound 3D™

Multi-Language Translation

Графичен чип

- Интегрирано високопроизводително 256-bit 3D графично ядро
- интегриран triangle setup engine с 32-bit формат на плаваща запетая VLIW
- Интегрирани 2 конвейера и 4 текстурни блока
- Честота на 3D графичното ядро – до 133 MHz

Възможности за разширяване

Дънната платка има следните разширителни възможности:

- Един слот AGP 3.5 със скорост 8X/4X (поддържа само интерфейс 1.5V AGP)
- Два слота 32-bit PCI v2.3
- Два нископрофилни 40-pin IDE колектора с поддръжка на четири IDE устройства
- един конектор за флопидисково устройство
- един слот CNR

Тази дънна платка поддържа UltraDMA bus mastering със скорости на трансфер 133/100/66 MB/s.

Интегриран мрежов контролер (опция)

Спецификация на интегрирания мрежов контролер:

- Поддръжка на режими 10/100Mbps
- Поддръжка на режими half/full duplex
- Съвместимост със спецификацията IEEE 802.3/802.3u
- Възможност за настройка на скоростта/дуплека и автосъгласуването
- Захранване 3.3V с толеранс на IO сигнала 5V

Интегриран Вход/Изход контролер

Дънната платка има пълен набор от I/O портове и конектори:

- два PS/2 порта за мишка и клавиатура
- един сериен порт
- един паралелен порт
- един VGA порт
- четири USB порта
- един LAN порт (опция)
- Аудио жакове за микрофон, линеен вход и линеен изход

BIOS Firmware

Дънната платка използва Award BIOS с възможност за различни системни настройки, включително

- управление на захранването
- Wake-up аларми
- параметри на процесора
- синхронизиране на процесора и паметта

настройка на скоростта на часовника на процесора



Хардуерните и софтуерни спецификации и параметри могат да бъдат изменени без предупреждение.

Jellemző

Processzor

Ez az alaplap 478-pin foglalat típusú Pentium 4-et alkalmaz, amely a következő tulajdonságokkal bír:

- Intel P4 processzorokkal működik
- Egészen 800 MHz (csak az órajel megemelésével) rendszerbuszt (FSB) támogat / 533 MHz
- Támogatja a „Hyper-Threading” technológiát használó központi egységeket

A „Hyper-Threading” technológia által az operációs rendszer úgy működik, mintha két processzorral rendelkezne, ami két szál párhuzamos futását teszi lehetővé két független, ugyanazon fizikai processzoron található „logikai” processzoron.

Megjegyzés: A felhasználók figyelmébe ajánljuk, hogy ez az alaplap csak 533 MHz FSB-t támogat; 800 MHz FSB csak az órajel megemelésével érhető el, de stabilitása nem biztos!

Lapkakészlet

Az SiS661GX Northbridge (NB) és SiS964L Southbridge (SB) lapkakészletek egy újító és méretezhető, nagy megbízhatóságú és teljesítőképességű architektúrára épülnek.

SiS661GX (NB)

- 12 elintézetlen műveletet és hibajavítás befejezését támogatja
- Nagy teljesítményű SiS MuTIOL 1G, amely a SiS964 MuTIOL 1G I/O hordozóhoz egy kétirányú, 16 bites adatbusszal csatlakozik, 1 GB/s sávszélesség elérésére 133 MHz-es 4-szeres módban.
- Támogatja a Fast Write (gyors írás) műveletet használó AGP 8X/4X interfészt
- DDR400/333/266 SDRAM modulokkal kompatibilis

SiS964L (SB)

- Az összes DMA eszköz egyidejű kiszolgálása: duál IDE vezérlők, a SATA vezérlő, három 2.0/1.1 USB gazda vezérlő, LAN MAC vezérlő, valamint Audio/Modem DMA vezérlő
- Kompatibilis a PCI 2.3-as specifikációjával
- Kompatibilis az AC'97 2.3-as verziójával, amely 6 csatornás AC'97 hangszóró kimenetet és V.90 HSP modemet támogat
- Beépített USB 2.0 vezérlő, amely három alaphub-bal és nyolc funkcionális porttal rendelkezik

Memória

- Puffermentes DDR400/333/266 DDR SDRAM memóriamodulokat támogat
- Maximum 1 GB-os DIMM egységeket támogat, maximális memória 2 GB

Audio

- 16 bites sztereo teljes duplex CODEC, 48 kHz-es mintavételezési sebességgel
- Kompatibilis az AC'97 2.3-as változatának szabványával
- kiváló minőségű differenciált Cd bemenet
- DVD audio lejátszás dupla mintavételezési arányú (96 kHz)
- kompatibilis a Direct Sound 3D™ technológiával

Grafika

- Beépített csúcsmínőségű, 256 bites 3D motor
- Beépített 32 bites VLIW lebegőpontos háromszög számítás
- 2 beépített pixelfeldolgozó csővonal és 4 mintázóegység
- Akár 133 MHz órajelű 3D motort támogat

Bővítési lehetőségek

Az alaplap a következő bővítési lehetőségekkel rendelkezik:

- Egy AGP 3.5 változattal kompatibilis 8-szoros/4-szeres sebességű foglalatot támogat (csak 1,5 V-os AGP interfészt támogat)
- Két 32 bites, a PCI 2.3-as verziójával kompatibilis foglalattal rendelkezik
- Két 40 tűs lapos IDE foglalat, amelyek maximum négy IDE egységet képesek kiszolgálni
- Egy hajlékonylemez meghajtó interfész
- Egy CNR foglalat

Ez az alaplap UltraDMA bus mastering technikát támogat, 133/100/66 MB/s átviteli sebességgel.

Alaplapon levő LAN (választható)

Az alaplapon levő LAN jellemzői:

- 10/100 Mbps üzemmód támogatása
- Fél, illetve teljes duplex üzemmód támogatása
- IEEE 802.3/802.3u kompatibilitás
- Állítható sebesség/duplex/automatikus beállítás
- 3,3 V-os üzemmód 5 V-os I/O jeltoleranciával

Beépített I/O

Az alaplapot az I/O portok és csatlakozók teljes készletével szerelték fel:

- Két PS/2 port az egér és a billentyűzet számára
- Egy soros port
- Egy párhuzamos port
- Egy VGA port
- Négy USB port
- Egy LAN port (választható)
- Audio csatlakozók mikrofon, bemenet és kimenet számára

BIOS Firmware

Az alaplapon levő Award BIOS segítségével a felhasználó a rendszer sok paraméterét állíthatja be, például:

- Energiagazdálkodás
- Ébresztési riasztások
- CPU paraméterek
- CPU és memória időzítés

A firmware segítségével a processzor órajel-frekvenciáinak paramétereit is beállíthatják.



Bizonyos hardverjellemzők és szoftverelemek előzetes bejelentés nélkül módosulhatnak.